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An Examination of the Role of Social Support, Coping Strategies, and Individual Characteristics in Students' Adaptation to College

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AN EXAMINATION OF THE ROLE OF SOCIAL SUPPORT, COPING STRATEGIES, AND INDIVIDUAL CHARACTERISTICS IN STUDENTS' ADAPTATION TO COLLEGE

by

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AN EXAMINATION OF THE ROLE OF SOCIAL SUPPORT, COPING STRATEGIES, AND INDIVIDUAL CHARACTERISTICS IN STUDENTS' ADAPTATION TO COLLEGE

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Adaptation, or adjustment, is a psycho-social process that occurs when an individual accepts and integrates into his or her life a transition from one situation to another situation (Schlossberg, 1981). Many individuals struggle with transitions because transitions involve changes in the environment, roles, routines, and/or ways of looking at the world. The present investigation examines the transition from high school to college, and explores the interpersonal and individual ways that students manage the changes accompanying this transition. Using Transition Theory as a framework, students' social support networks, coping strategies, self-esteem, and depression are posited to influence students' adaptation to college through educational commitment.

197 students took part in the study by completing an online survey. Students answered questions about their communication with peers, family, and teachers, the coping strategies they employed during the transition, their level of self-esteem, their level of depression, their degree of educational commitment, their extent of adjustment, and questions pertaining to demographic information. A path analysis examined the relationships under investigation.

The results of the present study revealed that self-esteem was the strongest predictor of students' adjustment, followed by depression, educational commitment, teacher support, peer support, and family support. While previous studies have not explored the role of educational commitment in the adaptation process, the findings revealed mediation effects. In particular, educational commitment mediated the effects of peer support, family support, teacher support, and self-esteem on students' adaptation. Contrary to the hypothesis, students' coping strategies were not significant predictors of students' adaptation to college.

Together, the findings indicate that adaptation is not just a process that happens psychologically within students, but rather adjustment is also a social process that occurs between individuals. Overall, the present study extends the current literature on the transition and adaptation process by clearly identifying and comparing the effects of individual-level variables and interpersonal variables, and by introducing a mediator variable that captures new relationships in the adaptation process.

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CHAPTER 1: RATIONALE

Introduction

Every year, about 20.4 million American's enroll in college (U.S. Department of Education, National Center for Education Statistics, 2011). As this number demonstrates, higher education is a significant part of American culture and a significant stage in the lives of many individuals. Not surprisingly, this stage has caught the attention of many researchers who are interested in learning about factors that help or hinder students' ability to transition and adapt to college (Benson, Hewitt, Devos, Crosling, & Heagney, 2009; Bohnert, Aikins, & Edidin, 2007; Lu, 1994; Thompson, 2008; Tinto, 1993; Wintre & Bowers, 2007). Although college is often viewed as a stage of growth, during which individuals mature and enter adulthood, it can also cause hardships and present setbacks (Nazione, LaPlante, Smith, Cornacchione, Russell, & Stohl, 2011).

The transition from high school to higher education is a stressful situation (Credé & Niehorster, 2012) that often takes a physical and psychological toll on students. Students often suffer from academic stress, feelings of loneliness, problems with close relationships (Boujut & Bruchon-Schweitzer, 2009), depression (Dyson & Renk, 2006; Wei, Russell, & Zakalik, 2005), negative thoughts (Starling & Miller, 2011), eating disorders (Cooley & Toray, 2001), and weight gain (Vella-Zarb & Elgar, 2009) as they attempt to navigate and manage their new environment. Students also engage in risky behaviors such as drinking and unsafe sexual behavior as coping strategies to deal with the changes and challenges they face upon entering college (Zaleski, Level-Thors, & Schiaffino, 1998). Furthermore, the change to higher

education provokes many feelings for students, including grief for what they left behind or lost, and excitement for their future lives (Chickering & Schlossberg, 2002). Even when the change is sought or voluntary (as opposed to a decision that is forced upon students by others such as their parents), students still experience these conflicting emotions (Chickering & Schlossberg, 2002) and engage in risky or destructive behaviors. The behaviors and emotions mentioned above are common responses to the stress of the college transition. For some students, the stress and difficulties continue to increase as they continue their transition, while for others the challenges become more manageable.

The stress and difficulty of the college transition is most evident in student's academic performance. Many students who struggle to adjust academically perform poorly during their first year (Mallette & Cabrera, 1991). Researchers have identified that students who drop out of college have a lower grade point average (GPA) in their first year of college than students who persist (Chen, 2012; Mallette & Cabrera, 1991). Other researchers have found similar patterns indicating that college grades are related to student persistence, where students with higher GPAs have a lower chance of dropping out (Chen, 2012). As these studies indicate, academic adjustment is an important indicator of student persistence. Unfortunately, even though much is known about the hardships that students face during their time in higher education, researchers have made little progress documenting how the process of adaptation occurs, and therefore know little about how to intervene in the process so that students effectively adjust.

What researchers do know is that a combination of individual, social, and situational factors, such as coping style, social support, and the timing of the transition (Schlossberg, 1995) shape how students manage the challenges they experience and the conflicting emotions that accompany the transition to college. Together, these factors can help students adapt to their new environment, but these factors can also undermine the transition process by making it harder for students to adjust if the resources they are drawing from are insufficient.

Communication researchers have found that social interactions serve as an important source of support during the transition to college and are important during the adaptation process (Kranstuber, Carr, & Hosek, 2012; Jones, 2008; Thompson, 2008; Thompson & Mazer, 2009; Wang, 2012). More specifically, the communication of social support from various members of students' social networks can significantly shape the process of students' adjustment to college (Credé & Niehorster, 2012). While students have an array of strategies and coping mechanisms to choose from and employ as they manage the transition, research reveals that messages from others communicating care and concern have the ability to alleviate the stress and difficulties students experience as they transition to college (Jones, 2008; Thompson, 2008; Thompson & Mazer, 2009).

My goal in the present study is to examine how students cope with this stressful life transition by focusing on how social interactions affect adaption to higher education and compare these social variables with other individual variables that affect student adaptation. Researchers have consistently verified the significance of supportive messages in stressful situations (Cohen & Wills, 1985;

Pauley & Hesse, 2009; Thompson, 2008; Wright, 2012) and this seems to suggest that one of the major keys to students' adaptation to college is social support. Instructional communication researchers have consistently confirmed that student interactions with their teachers shape student outcomes (Ellis, 2000; Jones, 2008; Schrodt, Turman, & Soliz 2006), suggesting that support from teachers is particularly influential. However, it is not clear how exactly support and other individual variables function in the process of adaptation, as some studies seem to indicate direct relationships while other studies seem to suggest indirect relationships. Thus, in the present study I examine the factors that affect student adaptation using Transition Theory and examine the ways that supportive messages and individual characteristics impact student adaptation.

While previous researchers have investigated individual factors (i.e., demographic and psychological variables) that affect students' transition and adaption to higher education, this study will add to the existing literature by examining the phenomenon from a communication perspective and by examining adaptation as a process. This study takes a communication perspective by examining how messages communicated to students from various members of their support network effect student adaptation to college. Rather than investigating simple associations with college adaptation as many previous researchers have done (Credé & Niehorster, 2012), the present investigation examines adaptation as a process by looking at how psychological and interpersonal variables together shape adaptation. Through the present investigation, I hope to understand how social factors affect the transition process, learn which sources of support have the

largest impact on student adaptation, compare the effects of social variables with individual variables, and examine the extent of influence these variables have on students by applying and testing Schlossberg's Transition Theory to the context of the college transition.

The present study is important because it provides information that can help students cope with the stressful college transition. This study can provide insight that can help ameliorate the social, academic, and psychological difficulties that many students experience as they transition from high school to college. An examination of how social support shapes students' transition and adaptation to college should provide a richer understanding of why students vary in their ability to manage the change from high school to college. In addition, this study can inform both our understanding of student retention and our approach to remedy the high number of students who dropout, as researchers have identified that academic and social adjustment are related to student drop-out (Chen, 2012).

The main impetus for this study comes from the alarming number of students who fail to graduate from higher education with their degree. In a study conducted by Aud, Hussar, Johnson, Kena, Roth, Manning, Wang, and Zhang for the U.S. Department of Education, National Center for Education Statistics (2012), less than 60 percent of first-time, full-time students at a four-year institution who sought a bachelor's degree completed a bachelor's degree at the same institution within 6 years. Of that number, about one-third of freshman students did not return the next year. While some of the students in the study transferred schools, many of them never returned and dropped out. Furthermore, in comparison to other countries,

the United States ranked 21 out of 28 countries in terms of higher education graduation rates (OECD, 2012), suggesting that colleges and universities need to make more progress in the areas of retention and graduation. Higher education, and to a greater extent, earning a bachelor's degree, is important because it brings with it career and life opportunities that would not otherwise be available to individuals (Pascarella & Terenzini, 1991). An examination of the social and psychological variables that effect students' transition and adaptation can help explain why students' struggle with college, why student dropout numbers are so high, and more importantly address the student dropout problem that institutions of higher education are facing. Ultimately, the information gleaned from the present study can be used to formulate interventions that will help students who struggle through this major life change or are thinking about leaving college and can inform programs that help students adjust to college.

Adaptation to college or to any situation is a complex process, and as adaptation expert Nancy K. Schlossberg (1981) stated, "…different factors have different salience depending on the transition and on the subgroup being studied...Simplistic explanations about the reasons for an individual's behavior – about his or her success in adapting to transition – are simply inappropriate" (p. 16). The present study is a response to Schlossberg's call for more research. In summary, through my investigation I hope to learn about the variables that differentiate students ability to adapt to college by identifying a model that depicts how social support and individual characteristics function in the adaptation process.

In the remainder of this chapter, I define the key terms in my study (transition and adaptation) and explain why the transition from high school to college is an important context to explore. Second, I discuss why Transition Theory is the most useful theoretical framework for understanding students' transition and adaptation to college. Third, I review the available literature on students' transition and adaptation, paying careful attention to the role of social support, and discuss how these variables effect adaptation. Finally, I pose the hypotheses and research questions that will guide this research study.

Chapter 2 provides a description of the methods and procedures used in the study, including details of the participants and how they were recruited, the instruments used to measure each variable, and the method of analysis used to examine the hypotheses. Chapter 3 presents the results for each of the research questions and hypotheses. Last, Chapter 4 provides a discussion of the findings, limitations of the study, and directions for future research.

Transition and Adaptation

Transition

In the present study, I focus specifically on one kind of transition, the move from high school to college, as most students leave college during their first year attending college (Hamilton & Hamilton, 2006; Levitz & Noel, 1989; Tinto, 1993). Schlossberg defined a transition as "an event or nonevent [that] results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behaviors and relationships" (1981, p. 5). Thus, a transition is when

an anticipated or unanticipated event does or does not occur (nonevents) and results in changes in relationships, routines, assumptions, and roles.

For many students, the move to college brings about immense change. They leave behind a good deal of what they know for something they know little or nothing about (Benjamin, Earnest, Gruenewald, & Arthur, 2007). Many students entering college, especially those coming directly after high school, may encounter unfamiliar or more demanding social and intellectual situations than what they previously experienced, such as changing membership from one community to another, separation from established relationships, and learning the norms and behavioral expectations of their new college or university (Christie & Dinham, 1991; Tinto, 1993).

One of the biggest challenges students face is academic adjustment, with many students struggling with studying, attending classes, passing classes, and communicating with professors during the transition period (Nazione et al., 2011). Similarly, college faculty recognize that academic adjustment is something that many students find difficult. In a study asking instructors about their perceptions of students, researchers found that only 31.5% of them felt students were adequately prepared for university classes (Wyatt, Saunders, & Zelmer, 2005), indicating that most instructors believe students are not prepared for the academic rigors of college.

Academic adjustment is an important piece to the dropout puzzle, as researchers have found that students who persist perform better academically during their freshman year of college (Mallette & Cabrera, 1991). Students who are

more academically integrated, as indicated by higher GPAs, are less likely to drop out of college than students with lower GPAs (Chen, 2012).

In addition to academic challenges, Nazione and her colleagues (2011) captured some other life changes that characterize the transition to college. The researchers interviewed 61 students and asked them what challenges they faced as they navigated through college life. Students identified several challenges, in addition to academic challenges, which included: (a) relationship challenges, such as conflicts between peers, relationship maintenance, and supporting peers; (b) work or career challenges, such as getting a job, work duties, and changing one's major specifically for career purposes (i.e., changing majors for a desired career or job); and (c) financial challenges, such as the need for money. When students transition to college, they face an array of hurdles that they need to overcome. Even when the hurdles are non-academic such as the challenges identified by Nazione and her colleagues (2011), they effect students' overall adjustment, as they make it harder from student to settle into their new life.

For students who do struggle with the transition, the transition can feel like navigating through a minefield. Students who struggle with the transition face obstacles such as a significant increase in academic demands, more autonomy, social isolation, and less academic structure than high school (Credé & Niehorster, 2012; Tinto, 1993). The differences in college persistence make visible that not all students experience college the same way and not all students are able to integrate the transition successfully into their new life situation. When students struggle with adaptation, they may leave college temporarily or permanently (Tinto, 1993).

Unsuccessful transitions. An unsuccessful transition is one where students are unable to make the appropriate changes that their new situation requires. In 2008, 19,103,000 students enrolled in a college or university, while in that same year only 1,563,069 students earned bachelor's degrees (US Census Bureau, 2012). These numbers illustrate that some students successfully transitioned from high school to college, adapted to the college environment, and ultimately completed college despite any obstacles they faced. Conversely, these numbers also illustrate that many students were not able to make it through the transition successfully. Some students dropped out of college permanently, took some time off, or delayed graduation because of the difficulties they face. For example, many students transferred schools, struggled to pass their classes, had difficulty financing college, and/or experienced personal issues during the transition. For students who dropped out of higher education, they decided that the transition was over and that they did not want to continue pursuing their education. These transitions are considered unsuccessful as students who drop out have chosen to forgo the integration of their college roles and responsibilities into their lives.

Characteristics of transitions. There are several qualities that set a transition apart as a period in one's life. One important characteristic of transitions is that they can result in both positive and negative outcomes, such as gains and losses (Schlossberg, Waters, & Goodman, 1995). Usually transitions are not exclusively positive or negative, but a mixture of both. For example, when students transition to college, they may lose connection with old friends and also make new

ones. Since transitions can involve both positive and negative outcomes, they present an individual with the opportunity to grow, and on the other hand, can also threaten the individual's psychological health (Moos & Tsu, 1976). Ultimately, one either thrives in a new situation, even after experiencing difficulties, or succumbs to the change and forgoes the transition.

Another characteristic of transitions is that they vary in duration (Schlossberg, Waters, & Goodman, 1995). Transitions can be very short-lived or prolonged. For many students, transitioning and making the adjustment to college is relatively easy, manageable, and is only a matter of a few weeks. The transition period is brief, the hurdles some students face are relatively small, and some quickly acclimate to their new environment. In fact, many students welcome the transition from high school to college, as the new environment is more suitable or desirable for their educational or personal needs. These students who thrive in college are able to quickly transition to college and adapt to the changes they encounter by incorporating the changes into their lives.

On the other hand, some students find the transition to college more challenging (Briggs, Clark, & Hall, 2012; Mattanah, Ayers, Brand, & Brooks, 2010) and spend a longer amount of time in the transition phase. These transition problems may manifest in students withdrawing from classes, failing classes, or choosing to take a longer amount of time to graduate. For example, "super seniors" can take five, six, seven, or even eight years to graduate from college. These students may take longer to graduate because they previously failed classes. In other instances, students my find their course load difficult, choose to enroll in the

minimum amount of units that enable them to be considered a full-time student each semester, and as a result take longer to graduate. Thus, while some students transition and adapt rather quickly, others take longer to acclimate (Schlossberg, Waters, & Goodman, 1995). This is consistent with how Schlossberg describes a transition as varying in duration among individuals (Schlossberg, Waters, & Goodman, 1995). Individuals who experience the same transition will vary in the amount of time the transition takes depending on the resources they have available.

The freshman year as a critical transition period. While students leave college at different times during their study, researchers have found certain patterns in terms of departure. Most often, poor adaptors can be identified early during the transition to college (Hamilton & Hamilton, 2006; Levitz & Noel, 1989). The first year of college is a particularly meaningful period in terms of persistence as students' experiences during the first year shape whether or not they continue with their studies (Tinto, 1993). Not surprisingly, the largest proportion of students who leave college or university do so sometime within their first year (Tinto, 1993). Students who leave during the first year represent a considerable proportion of all students who leave college (Bradburn & Carroll, 2002), which suggests that most college transitions last about a year or less, and that most students adapt to college sometime within a one-year period.

Similarly to Tinto's (1993) argument of first year departure, Bradburn and Carroll (2002) found that the number of freshman leaving college is larger than for students who have been in college longer. Students who are further along in their studies sometimes still leave college (such as juniors and seniors), but this number

is considerably lower than students who are in their first or second year of college (Bradburn & Carroll, 2002). Thus it appears that transition problems are more prominent during the first year, making the first year of college a more compelling period to study and a time period that will provide the richest amount of insight into transition and adaptation issues.

A 2009 report published by the U.S. Department of Education reinforces Tinto's (1993) and Bradburn and Carroll's (2002) findings that the first year is the most critical for adaptation, showing that 21 percent of first time, full-time students who entered a 4-year institution in 2009 did not return the following year to continue their studies (Aud, Hussar, Johnson, Kena, Rothe, Manning, Wang, & Zhang, 2012, p. 90). Furthermore, Chen (2012) found that academic and social integration during students' first year in college was inversely related to the risk of students dropping out. Thus, since research suggests that the college transition is particularly salient during the first year of college, this study will focus on students first year of enrollment in higher education. By focusing on this critical time period, I will be able to capture a range of students' experiences with the college transition while the transition is still fresh in students' memory. Research shows that memory declines over time (Thompson, 1982), therefore students perceptions of their transition will be more accurate if I ask them about their transition experience closer to the time that they have experienced the transition or while they are currently experiencing the transition.

Adaptation

Schlossberg defines adaptation as "the process during which an individual moves from being totally preoccupied with the transition to integrating the transition into his or her life" (1981, p. 7). Adaptation, or adjustment, is a psycho-social process and occurs when students move beyond the transition phase into acceptance of their new situation and integration of their situation into their life. Instead of the transition permeating all of a student's thoughts, attitudes and behaviors, adaptation means "the change is contained and integrated into the self" (p. 7). Students who adapt are able to manage the changes and challenges that accompany the move to college and make college one part of their life rather than the college transition overwhelming their entire life. Thus in the early stages of the transition, students are entirely aware that they recently graduated from high school and managing their new role as college students consumes much of their life. However, once students have adapted to college, their new roles seem normal to them and they have learned how to effectively function as college students.

In the literature, researchers have used other terms to refer to the study of adaptation. *Adjustment* is a common alternative term that researchers have used in place of adaptation. These terms are frequently interchanged because both adaptation and adjustment concern how individuals productively respond and deal with change (Schlossberg, 1981). Adjustment to college is based largely on Lazarus and Folkman's (1984) stress and coping framework and focuses "explicitly on the degree to which students are able to quickly and effectively adapt to the various challenges encountered in the new college environment (Credé and Niehorster, 2012, p. 134). Since these terms conceptually overlap and are used interchangeably

in the literature, the term adjustment is used as an equivalent term in the present study to refer to adaptation.

College adaptation. College adaptation is multidimensional and Baker & Siryk (1984) were able to identify and measure four different categories of adjustment to college: academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment. The first type of adjustment, *academic adjustment*, refers to "the degree to which students have adapted to their academic demands as reflected in their attitudes towards their course of study, their engagement with material, and the adequacy of their studying and academic efforts" (Credé and Niehorster, 2012, p. 135). *Social adjustment* refers to the extent and success of students taking part in social and campus activities, students integrating themselves into the social structures of the university, students getting to know new people and creating new friendships, and students dealing with new social settings (Baker and Siryk, 1984; Credé and Niehorster, 2012). *Personal-emotional adjustment* refers to the extent to which students are experiencing physical and psychological reactions (e.g., loneliness, depression, drug use, and weight gain) to the college transition (Baker and Siryk, 1984). Last, *institutional attachment* (sometimes referred to simply as attachment), describes how much "students identify with and have become emotionally attached to the university community (Credé and Niehorster, 2012, p. 135). Together, these four dimensions of adjustment can be summed in order form an overall assessment of general college adjustment (Credé and Niehorster, 2012). In the present study, these dimensions will be used to refer to and reflect student adaptation.

The presence of different types of adjustment means that students can adapt well to specific aspects of college life (e.g. social demands) but not so well in other aspects (e.g., academic demands; Credé and Niehorster, 2012). Ideally, students should adapt to college in all four ways, as poor adjustment in one area can strain and inhibit the other types of adjustment. For example, if students are struggling in terms of personal-emotional adjustment , this may not only affect how students feel but may also strain students' academic and social adjustment as students may not attend class and may withdraw socially leading to feelings of loneliness and depression (Li, Zhang, Liu, & Cao, 2013).

College adaptation versus other variables. It is important to note that other variables can affect students' decisions to stay or leave college, but these issues are outside of the scope of the present study. For example, while some may argue that financial issues are an important variable when it comes to student adaptation, the results across several studies indicate that socio-economic status is not related to college adjustment (Credé and Niehorster, 2012).

Although students may drop out due to financial reasons, there is no direct relationship between finances and persistence (Tinto, 1993). Finances may, at first glance, seem directly related to adaptation, however, several studies have found that the relationships between socio-economic status and college adjustment, and socio-economic status and persistence, are weak (Credé and Niehorster, 2012). Surprisingly, socio-economic variables (such as family income, father's occupation, father's education, mother's education) account for little variance in dropping out and completing college when compared to other factors such as ability (vocabulary,

general information, creativity, abstract reasoning, and mathematical aptitude), interests (level of interest in physical science, literature/linguistics, and social science), temperament (sociability, impulsiveness, and maturity), college commitment (individual's college plans, college encouragement by father, college encouragement by mother, and college encouragement by peers), and family of procreation variables (e.g., broken versus unbroken home, number of siblings, and first-born versus otherwise; Bayer, 1968).

The poor predictive power of socio-economic factors on college departure may be due to the increasing availability of financial aid. In the 2009-2010 academic year, 85 percent of first-time, full time undergraduates attending 4-year institutions received some form of financial aid (Aud, Hussar, Johnson, Kena, Roth, Manning, Wang, Zhang, 2012). Students who need financial assistance to pay for college often times qualify for grants which do not need to be repaid (from state, local, and federal governments, from institutions, and from private sources) and scholarships (Aud et al., 2012). According to a report published by the U.S. Department of Education, sixty seven percent of full-time undergraduate students attending public, four-year colleges and universities received either a grant or scholarship to help them with their academic expenses (Aud et al., 2012). In addition, loans are available to all students (Aud et al., 2012).

Financial aid makes it possible for students of different socio-economic backgrounds to attend college. Although some students may not be able to afford college, these students can obtain loans, grants, or scholarships to help minimize or even eliminate the threat of finances on their persistence (Tinto, 1993). Thus, the

literature suggests that because financial aid is available, financial problems and socio-economic variables are not significant predictors of student dropout.

Outcomes associated with adaptation. Not only is adaptation important for students' well-being, but research studies support the notion that adaptation is the key when it comes to other positive student outcomes. In a meta-analysis conducted by Credé and Niehorster (2012), the researchers concluded that adjustment to college was related to retention. In particular, retention was most strongly correlated with *institutional attachment* (ρ = .29), proceeded by *social adjustment* (ρ = .25), then *academic adjustment* (ρ = .19), and finally *personal-emotional adjustment* (ρ = .13). Credé and Niehorster state that "the relationship of institutional attachment with retention is larger than for any other predictor known" (2012, p. 156). It makes sense that adaptation is related to retention. If students make it to graduation, then it shows that they managed the stresses caused by the transition and that accompany the transition. Students who persist to graduation are able to contain and manage any changes and struggles they experience during their transition, even difficulties not directly associated with the transition (Goodman, Schlossberg, and Anderson, 2006).

In addition to retention, other research studies have indicated that adaptation is important beyond simply integrating the change from high school to college into one's life. Adaptation to college is important for many other reasons beyond the college context. Students who fail to adapt to college and drop out oftentimes incur debt from student loans or limit their professional opportunities. In fact, researchers have found that earning a bachelor's degree has a major impact

on one's "career choice, career progression and success, and the transfer of occupational status advantage from one generation to the next" (Pascarella & Terenzini, 1991, p. 424). Those who earn a bachelor's degree and seek employment are more likely to join the work force and are less likely to be unemployed compared to those whose formal education concludes at high school (Young, 1975; Young & Hayghe, 1984). Earning a bachelor's degree also considerably increases one's career mobility and success (Rosenbaum, 1984). In terms of earnings, research shows that college graduates earn more than high school graduates (Jencks, Barlett, Corcoran, Crouse, Eaglesfield, Jackson, McClelland, Mueser, Olneck, Schwartz, Ward, & Williams, 1979). As these research studies indicate, a college degree is important for later in life, and the consequences of failing to adapt to college and dropping out reach far beyond the parameters of college courses and campuses. Student adaptation to college can prevent many of these negative outcomes that occur later in life, as research shows that adaptation predicts college retention (Credé and Niehorster, 2012).

In review, by applying Schlossberg's (1981) definition of adaptation to the present study, I define *college adaptation* as the process whereby students are able to effectively cope with the changes and stresses of college, and thus persist with their education until they earn their degree. This definition demonstrates that students who effectively adapt to college are able to move past the transition phase and integrate their new relationships, routines, assumptions, and roles into their lives. Schlossberg describes specifically how students can move from the transition phase to adaptation in Transition Theory.

Transition Theory

Transition Theory, also known as the transition framework, describes how people deal with change (Schlossberg, 1981). The theory applies specifically to adults and not children, as children are developmentally different from adults (Schlossberg, 1981). Champagne and Petitpas (1989) contrast children from adults using the following characteristics: (a) adults possess the ability to be a self-differentiated individual with a meaning and purpose in life; (b) adults possess the ability to maintain intimate relationships, care for themselves and care for others; (c) adults possess the ability to take responsibility for the choices they make and the consequences of their choices, relinquish unattainable choices, and accept that some things that influence choice are beyond one's control; (d) adults have the ability to manage the frustrations and disappointments of life; and (e) adults have the ability to constantly manage multiple roles, such as individual, work and family roles. Thus, adulthood is not marked by reaching a certain age, but rather by maturity and capabilities. Most students entering college possess many or all of these adult abilities, even though they may not use these abilities very well.

Nancy K. Schlossberg formally delineated the initial Transition model in 1981 as a way to analyze and formulate possible interventions for "transitions of all kinds – positive and negative, dramatic and ordinary" (p. 2). The model, which was eventually revised to a more comprehensive theory, attempts to describe "the extraordinarily complex reality that accompanies and defines the capacity of human beings to cope with changes in their lives" (p. 2) by simultaneously examining individual, social, and environmental factors. The theory originates from the adult

development literature, and most notably draws from the work of Levinson, Darrow, Klein, Levinson, & McKee (1977, 1978), Lieberman (1975), Lipman-Blumen (1976), Lowenthal, Thurnher, and Chiriboga (1975), Parkers (1971), and Zill (1974). Scholars have described Transition Theory as a psychosocial theory (Evans, Forney, & Guido-DiBrito, 1998) that takes into consideration "the context in which development occurs and is focused on the content of development" (Taub, 2008, p. 23).

The Initial Transition Model

In the initial transition model (the model was later revised into a theory, as will be discussed later in this chapter), Schlossberg (1981) categorized the variables that appeared to influence adaptation into three broad sets of factors. These three major sets of factors that effected adaptation across all transition situations are: (a) the perception of the particular transition, (b) characteristics of the pre-transition and post-transition environments, and (c) characteristics of the individual experiencing the transition. These factors represent individual variables, social variables, variables related to the transition, and external variables.

The variables that made up the *perception of the particular transition* included: *role change* (taking on a new role or losing a role), *affect* (the positive feelings, negative feelings, or both, generated by the transition), *the source of the change* (internal sources of the change such as an intentional decision made an individual, or external sources of change that an individual has no control over, such as a decision that is forced upon an individual by another person or an uncontrollable circumstance), *timing* (events that happen "on-time" and as

scheduled, or "off-time" such as an event that occurred earlier or later that expected), *onset* (the change is expected and an individual has time to prepare or rehearse for the change, or the change is sudden and unexpected), the *expected duration of the change* (permanent, temporary, or uncertain), and the *degree of stress caused by the change*.

In terms of the *characteristics of the pre-transition and post-transition environments*, Schlossberg identified the following variables that constitute this factor: interpersonal support systems (intimate relationships, family, and network of friends), institutional support systems (formal and informal organizations or agencies that individuals can turn to for support), and the physical environment (climate, weather, urban or rural location, neighborhood, and living arrangements). This factor encompassed social variables under interpersonal support systems and institutional support systems, but it was not until later when Schlossberg and her colleagues revised the model into a theory that social variables (and therefore communication variables) became an important and distinct factor in transitions and adaptation.

The last set of factors that affect adaptation, *the characteristics of the individual*, include: psychosocial competence (self-attitudes, world attitudes, and behavioral attitudes), sex and sex-role identification, age and life stage, state of health, race-ethnicity, socio-economic status, value orientation, and previous experience with a transition of a similar nature. Together, these three sets of factors mediate the relationship between a transition and adaptation, and explain why people vary in their ability to manage change (Schlossberg, 1981). In the present

context, these factors can explain why some students successfully adapt to college life, why others struggle, and why others fail to adapt altogether.

Unfortunately, because the initial model was so broad, researchers had difficulty applying the model and thus only a few researchers were able to apply the model to their studies (Schlossberg, 1980). Instead, researchers focused their attention on understanding the relationship between individual variables and adjustment (Aspinwall & Taylor, 1992; Mooney, Sherman, & Lo Presto, 1991) since these relationships were more testable. For example, researchers were able to identify the relationships between certain cognitive traits, psychological adjustment, and academic performance (Aspinwall & Taylor, 1992). While studies such as these proved valuable in terms of understanding how specific variables effected certain student outcomes, the research on transitions was still scant and gave a very fragmented view of how individuals manage their transitions. In order to make the model more testable and applicable, Schlossberg and her colleagues revised the model into theory.

The Revised Transition Theory

In 1995, Schlossberg, Waters, and Goodman revised the Transition model into a more testable theory in order to describe in more specific details the factors that affect an individual's ability to cope with a transition and adapt (Schlossberg, Waters, and Goodman, 1995). Schlossberg and her colleagues revised the original three factors in the model by narrowing their scope. The researchers replaced the original three factors in the model with four new ones. The researchers named the four new factors in the new theory the "*Four Ss*." The *Fours Ss* represented the

following factors: (a) situation, (b) self, (c) strategies, and (d) support. I provide a description for each factor below, and then discuss the research on these factors in the following section.

Situation factors describe properties of the transition, and include timing of the transition (good or bad timing), assessment of the transition (positive, negative, or in-between), source of the transition (internal or external), the role change that comes with the transition, duration of the transition, stress that comes with the transition, and an individual's experience with previous transitions that are similar to the present transition. This factor reflects an individual's perception and appraisal of the transition.

The second factor, *support,* was a new factor that was not recognized as a unique factor in the original model. *Support* refers to the people and assets that help an individual during a transition. This new factor represents the social and communication components of the theory. In the present context, this factor depicts how interactions with individuals (both new and from before the transition) can shape how students transition and adapt to college. It includes social support from interpersonal relationships such as friends, family, and classmates, and also less intimate relationships such as faculty, staff, academic advisors, tutors, and counselors.

The third factor, *Self,* describes the demographic and psychological characteristics of an individual, such as one's sex, age, ethnicity, one's sense of control over one's life, being an optimist or pessimist, self-efficacy, commitment, and values.

The fourth factor, *Strategies*—a new factor Schlossberg added to the revised theory—refers to the actions or tactics an individual uses to cope with a transition. These include having positive beliefs, problem solving, using social skills, seeking social support, or using material resources. Together the *Four S* system "describes the factors that make a difference in how one copes with change" (Schlossberg, Waters, & Goodman, 1995, p. 47).

In addition to these four factors that mediate the relationship between transitions and adaptation, Schlossberg describes three components that define adaptation (1981). First, adaptation is a dynamic process that develops over time. Adaptation is not static but rather happens in stages, and people can move towards or away from adaptation. Thus student adaptation to college occurs over a period of time, and it can range from a few weeks, to months, or even years. In addition, since adaptation is a process, adaptation can also shift from challenging to manageable or vice versa at any point.

The second defining component of adaptation, as Schlossberg (1981) states, is: "Ease of adaptation to a transition depends on one's perceived and/or actual balance of resources to deficits in terms of the transition itself, the pre-post environment, and the individual's sense of competency, well-being, and health" (p. 7-8). When an individual has ample resources (such as a supportive family, supportive friends who are also attending the same college, the student enjoys learning, and the student generally deals well with stress) to compensate for the new change to college, then the adaptation process is easier. However, if the deficits substantially exceed the resources (such as poor grades in high school, a recent

romantic break-up that reduces the individual's support system, the student has low self-esteem, and the student deals poorly with stress) during a transition, then adaptation can be especially difficult.

The third component that defines adaptation according to Schlossberg is "…the degree of similarity or difference in one's assumptions about self and in one's environment (especially the interpersonal support system network of relationships) before and after the transition" (p. 8). Schlossberg states that one way to examine the degree of similarity or dissimilarity is to evaluate the difference between the pre-transition and the post-transition environments, including the students' roles, relationships, responsibilities, and the situation. The level of similarity or dissimilarity between the old and new environments is important because the difference can make the transition easier or harder. For example, if a student perceives a large contrast between his or her role as a high school student and his or her role as a college student, then life as a college student will likely be more difficult to adapt to than if the student saw more resemblance between the two experiences.

Transition theory is a particularly helpful theory in terms of understanding how individuals confront life changes because of the theory's ability to capture the complexity of the transition and adaptation process. The combination of self, situation, support, and strategy factors, in addition to the components of adaptation, result in a broad and comprehensive picture of how people deal with change in their life. Yet despite the theory's wide scope, it is able to parsimoniously incorporate

many variables that researchers know to be important in terms of dealing with change.

Research on Transitions and Transition Theory

Researchers have investigated how people manage all sorts of life transitions such as retirement (Bigby, Wilson, Balandin, & Stancliffe, 2011), career changes (Bauer & McAdams, 2004), job loss (Schlossberg & Leibowitz, 1980), marriage (Manning & Smock, 1995), and parenthood (Belsky, Spanier, & Rovine, 1983). These studies have focused on issues such as themes of personal growth (Bauer & McAdams, 2004), the changes people experience (Belsky, Spanier, & Rovine, 1983), and how people adapt to change (Schlossberg & Leibowitz, 1980).

Only a few researchers have examined Transition Theory in the context of college. Powers (2010), for example, examined nontraditional male students who dropped out of college. In the study, Powers investigated how the situation, support, self, and strategies affected nontraditional male students' transition to college and how these four factors ultimately led to their decision to drop out of college. Powers interviewed fourteen students who dropped out of a 4-year public university before earning a bachelor's degree and described in depth their transition and lack of adaptation to college by asking the participants questions about their situation, support, self and strategies before college, during college, and after their decision to drop out of college.

The results of the study provided insightful information about nontraditional males students who drop out of college. As her participants moved in, moved through, and moved out of college, their liabilities grew, and the costs of attending

college were not worth the benefits. For her participants, strategy, situation and support factors were salient factors that influenced their decision to leave college. Self was not a primary factor that her participants discussed when it came to the decision to leave college. The participants did not perceive that they themselves were responsible for dropping out of college even though they ultimately made the decision. Rather, the students in her study perceived that the situation, the strategies they used during the transition, and the quality of the interactions with family, friends, faculty and staff were insufficient in some way. Ultimately, these factors led all the participants to the decision to leave college.

The students in Power's study found college difficult to manage alongside their other roles and responsibilities, and although they were employing certain strategies to help them academically (such as study strategies), the strategies were insufficient and her participants still struggled. For the men, it seemed as though this transition was not something they could manage on their own. Thus, the men in her study seemed to suggest that they needed more support from people inside and outside of the college context to help them with college since the men's efforts alone were not enough. This study aims to extend Power's (2010) findings on support by examining more closely the role of different kinds of support in the transition to college. In addition, in the present study, I examine variations in the degree of student adaptation (not just students who have withdrawn from the transition), and focus on students who are making the transition directly from high school to college since these students have the highest risk of dropping out (Tinto, 1993). In order to

understand the role of communication in the transition process, I focus specifically on how different kinds of interactions impact the transition and adaptation process.

The next section describes the research that has been conducted on situational variables, individual variables, coping strategies, and social support. Research studies concerning situational, individual, coping, and support variables alone are more widespread compared to the research studies that have applied or tested Transition theory in its entirety because Transition theory is relatively new. Researchers have also found it more feasible to examine a few variables as opposed to the several variables identified in Transition theory. In addition, the earlier prolific body of research concerning how people deal with change eventually led to the development of Transition theory. These reasons have lead Transition theory to be under investigated, although research on individual variables that make up Transition theory is widespread.

While the focus of the present study is on the role of social support on students' transition and adaption, in the next section I also provide a review of the literature for situational, self, and strategy factors as these factors also shape students' transition and adaptation. Using the available literature, I focus on a few individual variables (psychological variables and how individuals cope) that researchers have found to significantly shape the transition process and include these variables in the present study as a way compare social support to other important variables, and as a way to integrate the existing literature into Transition theory. I then narrow my attention to social support.

Situation

The least investigated factor in Transition Theory is the situation. Few studies have examined the properties of the transition, and instead have focused on how individuals manage a transition, how a transition affects individuals, or outcomes related to a transition. This lack of attention on situational factors suggests that researchers are not so much interested in variables that cannot be changed (such as the characteristics of a situation), but that researchers are more concerned about variables that can be altered, such as the strategy and support factors that will be discussed in the next section of this chapter.

A study by Magnusson (1982), however, points to the importance of situational factors by arguing that "it is in actual situations that we encounter the world, form our conceptions about it, and develop specific kinds of behavior for coping" (p. 233). He argues that research which examines situational variables are important because human behavior is rooted in actual situations and humans engage in behavior relative to certain situational conditions. Any complete understanding of human behavior cannot be separated from the situation that gave rise to the behavior (Magnusson, 1982).

In response, Lazarus and Folkman (1984) identified and discussed several situational variables that influence the potential for stress and coping in a situation. Only variables pertinent to the college transition will be discussed here, but a more comprehensive discussion of other variables can be found by reading Lazarus and Folkman (1984). Information about the situational properties of a transition play a

role in the person's assessment of what is at risk, its impact on well-being, and whether anything can be done to remedy the situation.

Novelty refers to the extent that an individual has not had a previous experience (Lazarus and Folkman, 1984). The novelty of a situation is created through the appraisal of related previous experience or general information. Novelty can become a source of threat or a challenge if the situation had been previously associated with harm or requires mastery. In transition theory (Schlossberg, Waters, and Goodman, 1995), novelty is encompassed by the degree of similarity between the present transition and past experiences.

Another property of the situation is *event uncertainty.* Event uncertainty refers to the probability that an individual will be able to predict what will happen (Lazarus and Folkman, 1984) during the transition. Maximum levels of uncertainty are more stressful than minimal levels of uncertainty because uncertainty can stifle coping processes and cause confusion.

In terms of temporal factors, Lazarus and Folkman (1984) discuss *duration* as the length of time during which a stressful event persists. It seems as though long-term or chronic stressors tire an individual physically and psychologically compared to short term or temporary events.

The *timing* of the transition also has important implications on how an individual might cope. The college transition can be thought of in relationship to other events (Lazarus and Folkman, 1984). The occurrence of the college transition in close proximity to other stressful events might generate more distress or add weight to the college transition. Concurrent or close proxemic stressful events can

heighten the transition and make it more stressful, or even suppress the transition by making the college transition a less important event that doesn't need attention right away.

Since few studies that have been conducted on situational factors, not much is known about how particular characteristics of a situation affect individuals. It seems that Pearlin and Schooler (1978) were the first to explicitly acknowledge that the type of situation effects how one copes with stress. Researchers were later able to confirm Pearlin and Schooler's hypothesis. For example, in a study conducted by Mattlin, Wethington, and Kessler (1990), the researchers compared *stressful events* and *difficulties*. A stressful event was defined as an isolated or distinct occurrence (a temporary or short term stressful situation), while a difficulty was defined as an ongoing or enduring situation (a long-term stressful situation). In Mattlin, Wethington, and Kessler's (1990) study, participants coping with a stressful event, who rated the event high in terms of threat, experienced significantly greater levels of anxiety and depression compared to participants who rated the event as less threatening. Interestingly, for those coping with a chronic difficulty, the severity of threat posed by the situation was not related to differences in anxiety or depression, perhaps because many of the participants were still dealing with the long-term stressful situation. In addition, those who experienced stressful events became significantly less anxious and less depressed as time went on. However, while those who experienced chronic difficulty became less depressed with time, anxiety did not decrease, and furthermore these finding were not significant in the chronic difficulty group. As the researchers explain, "It is possible that the persistent nature of

difficulties is largely responsible for the absence of firm relationships between their situational characteristics and subsequent psychological adjustment" (p. 111). As Mattlin, Wethington, and Kessler's (1990) study demonstrated, the perceived duration and threat of a stressful event or transition has implications on mental health indicators such as anxiety and depression.

While an individual's perceptions of a situation can trigger certain responses or behaviors, these responses are not predetermined. Rather, individual traits, characteristics, coping strategies, and support systems can offset even the most difficult of situations and make the situation more manageable; these modifiable variables are the focus of the present study as they reflect how individuals interact with their environment.

Self

The individual characteristics students possess upon entering college are among the most researched aspects of student success, persistence, and college adaptation. Researchers have investigated how demographic characteristics are related to college adjustment, and most of this research has focused on how minority students (conceptualized in a range of different ways such as race, ethnicity, sex, gender, disability, or country of citizenship) face unique challenges and how minority membership is related to college adjustment (Anglin & Wade, 2007; Credé & Niehorster, 2012; Fischer, 2007; Mamiseishvili & Koch, 2011; Strage, 2000; Tomlinson-Clarke, 1998; Tyler, Garriott, Love, Brown, Thomas, & Roan-Belle, 2011).

Interestingly, Credé & Niehorster (2012) found in their meta-analysis involving *self* factors that there are very weak relationships between demographic information and adjustment to college constructs. Across several studies, variables such as age, sex, minority status, socio-economic status, and first-generation college student status were greatly unrelated to college adjustment. These findings are important because they indicate that although demographic information may be important or salient variables in other life transitions, demographic variables do not play a significant role in the college transition.

Another interesting finding in regards to individual characteristics was the relationship between variables that represented students' general cognitive ability and students' adjustment to college. Initially, researchers thought students who earned higher GPAs in high school and scored higher on standardized tests (SAT and ACT) would adapt better to college since these students would theoretically be more prepared for college. In other words, researchers assumed that students who earned higher GPAs in high school and scored higher on college admissions tests would find the academic demands of college less challenging since these students would be able to process new information faster and gain new skills faster. However, Credé & Niehorster's (2012) meta-analysis demonstrated that only very weak relationships existed between high school GPA and overall adjustment (ρ = .09), and admissions test scores and overall adjustment (ρ =.12). These findings are very intriguing given that high school GPA, SAT scores, and ACT scores are the predominant variables that colleges and universities use for admissions. These

weak relationships have lead researchers to turn their attention to other individual variables that might explain variations in students' adaptation.

Researchers have found that psychological characteristics are related to adaptation. Psychological characteristics such as conscientiousness, neuroticism, self-esteem, locus of control, and self-efficacy can interfere or assist with college adaptation (Aspelmeier, Love, McGill, Elliott, & Pierce, 2012; Mooney, Sherman, & Lo Presto, 1991; Ramos-Sánchez & Nichols, 2007). The relationships between psychological characteristics and college adaptation are nuanced and indicate that certain traits and states affect adjustment while others have little influence.

In Credé & Niehorster's (2012) meta-analysis, core self-evaluations and traits such as self-esteem (*number of studies* = 27, N = 7,345, ρ = .56), self-efficacy (*number of studies* = 8, N = 1,570, ρ = .45), conscientiousness (*number of studies* = 3, N = 1,201, ρ = .42), and internal locus of control (*number of studies* = 11, N = 2,694, ρ = .42) had the strongest positive relationships with students' overall adjustment, while neuroticism had the strongest negative relationship with all the adjustment to college constructs (*number of studies* = 9, N = 1,458, ρ = –0.45). Of these core traits, self-esteem seems to be particularly important during the college transition.

In regards to self-esteem, researchers have found that self-esteem is a functional, or productive, attitude. Higher levels of self-esteem lead to lower levels of stress in students, and also higher levels of self-esteem are associated with greater physical and psychological well-being (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Stupnisky, Perry, Renaud, & Hladkyj, 2013). When students experience negative events in college, self-esteem can also impact how students feel

(Li, Zhang, Liu, & Cao, 2013). More specifically, researchers have found that self-esteem completely mediates the relationship between negative interpersonal life events and social avoidance, and partially mediates the influence of negative interpersonal life events on depression and loneliness (Li, Zhang, Liu, & Cao, 2013). Thus, higher levels of self-esteem are beneficial for students, as self-esteem is related to psychological well-being and can serve as a buffer against one's own negative feelings.

In addition to the stable individual characteristics discussed above, researchers have found that affective states are related to adjustment. Across several studies, optimism (*number of studies*=4, *N*=621, ρ=.49) and positive emotionality (*number of studies*=6, *N*=804, ρ=.45) have been positively correlated with overall adjustment, while depression (*number of studies*=17, *N*=2,759, ρ=–0.61), stress (*number of studies*=15, *N*=2,563, ρ=–0.37), negative emotionality (*number of studies*=4, *N*=513, ρ=–0.41), and interpersonal guilt (*number of studies*=5, *N*=957, ρ=–0.39) have been negatively correlated with overall adjustment.

While some affective states are productive in terms of their outcomes, depression is associated with dysfunction. Researchers have studied the ways that depression can harm students in the college and university context as previous studies have noted the significant negative relationship between depression and adjustment. Researchers have found that depression is positively correlated with stress, negatively related to social support, and positively related with drinking behavior (Pauley & Hesse, 2009). Depression is thought to impede the college adjustment process because students who are depressed often withdraw from

social interactions, which could otherwise help them buffer against the stress they experience (Pauley & Hesse, 2009).

Core self-evaluations and traits and affective state variables shape the way students handle problems, the way they perceive their new environment, and the way they perceive the situations they face (Credé & Niehorster, 2012). In the present study, I include self-esteem and depression as indicators of individual characteristics, or the *self* factor, since these variables have been found to have the strongest relationships with adjustment. In addition these variables represent two opposite dimensions of individual characteristics: self-esteem represents a functional dimension of individual characteristics while depression represents a dysfunctional dimension of individual characteristics. Even though researchers have confirmed that self-esteem and depression are related to college adjustment, researchers have yet to compare how these variables together influence college adaptation in comparisons to other influential variables in transition theory (such as support from peers, family members, or instructors). The inclusion of these variables in the present study will provide a more comprehensive picture of the variables that affects students' adaptation to college.

Psychological traits and affective states are individual variables that affect a student's ability to adapt, however, Transition theory also posits that the coping strategies an individual employs can shape the nature and outcome of the transition process. Researchers have confirmed that different coping strategies exist (Lazarus & Folkman, 1984) and that individuals are more likely to use certain strategies in

particular situations (Folkman & Lazarus 1980; 1985); these coping strategies are discussed below.

Strategies

Researchers have long documented the ways individuals manage stressors. In the literature, researchers refer to the strategies that individuals use to manage emotions, pressures, and demands as *coping.* Coping is thus the technical term for *strategies* and is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceed the resources of the person" (Lazarus and Folkman, 1984, p. 141). Coping is a process that takes effort and includes "anything that a person does or thinks, regardless of how well or badly it works" (p. 142). Coping therefore refers to the things that an individual does in order to adjust to a situation or reduce stress, and in the present study will be used to refer to the strategies a student employs in an attempt to manage the transition to college.

Researchers have studied the concept of coping in many situations, including ill adults (Felton & Revenson, 1984), married couples (Folkman et al., 1986), dating individuals (Maguire & Kinney, 2010), job loss (Harris, Heller, & Braddock, 1988), starting a new job (Feldman & Brett, 1983; Fisher, 1985), job functioning (Coster & Schwebel, 1997), and burnout (Albrecht, 1982). Acknowledging that college is a particularly stressful situation for students (Boujut & Bruchon-Schweitzer, 2009; Credé & Niehorster, 2012), researchers have turned their attention to the ways which students cope with this transition.

The literature to date indicates that the college transition is a stressful transition for students (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012), and that students employ an array of coping strategies (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012; Folkman & Lazarus, 1985) that may or may not be helpful or productive. Lazarus and Folkman (1984) distinguish between problem-focused coping and emotion-focused coping. In *problem-focused* coping, coping efforts are targeted towards handling or transforming the problem responsible for the distress. Examples include defining the problem, developing alternative solutions, comparing the costs and benefits of the alternative solutions, choosing a solution, attempting to reduce the stressfulness of the situation, finding alternative channels of satisfaction, setting new standards of behavior, or learning new skills and procedures. For students, these strategies include spending more time studying, finding alternative ways to study, finding better ways to manage their time, reading course material, exercising, drinking, using drugs, or taking notes in class.

On the other hand, *emotion-focused* coping is targeted at managing emotional responses to the problem (Lazarus and Folkman, 1984). These strategies involve cognitive processes aimed at decreasing emotional distress or changing the meaning of the situation. Examples include reappraisal, avoidance, minimization, distancing, selective attention, positive comparisons, and finding the positive aspects of negative situations. For students, this may translate into reframing the situation, avoiding going to class, avoiding schoolwork, minimizing the importance of grades, or comparing themselves to students who are worst off.

Folkman and Lazarus (1980; 1985) found that individuals were more likely to use emotion-focused coping when they believed nothing could be done to change detrimental, threatening, or demanding environmental circumstances, while individuals were more likely to use problem-focused coping when they believed that conditions could change. In terms of adjustment, Credé and Niehorster (2012) found that problem-focused coping strategies were moderately and positively related to student adaptation, while emotion-focused coping strategies (and more specifically avoidant coping strategies) were negatively related to student adaptation.

Although students have an array of problem-focused and emotion-focused strategies they can choose from, not all strategies will help them adapt to college. In situations where certain strategies are not helpful or productive, finding other, more effective strategies is important if students are to successfully adapt. *Coping flexibility* refers to one's ability to cease using a coping strategy that is inefficient and switch to an alternative strategy (Kato, 2012). Coping flexibility is a combination of evaluative coping (identifying a strategy as producing unfavorable outcomes and abandoning the ineffective strategy) and adaptive coping (finding an alternative strategy and implementing the alternative strategy; Kato, 2012). Coping flexibility can be more useful than examining any single coping strategy because it involves how students use a strategy or strategies that they have available.

Coping flexibility is particularly important in the present study, as previous studies have noted that more adaptive results such as psychological health are likely when individuals use flexible coping strategies (Kato, 2012), and that resilient outcomes are related with flexible coping (Galatzer-Levy, Burton, & Bonanno, 2012).

The present study directly tests the relationship between coping flexibility and students' adaptation to college as this relationship has yet to be investigated and also examines how coping flexibility compares to other variables that affect adaptation and persistence.

While the relationship between coping flexibility and adaptation has not yet been tested, previous studies suggest that there is a positive relationship between coping flexibility and adaption. Kato (2012), who developed the Coping Flexibility Scale, tested the relationship between coping flexibility and psychological health variables in a series of five studies. Kato found that students and workers who were able to change their coping strategies experienced less anxiety, depression, and distress. Coping flexibility was an important variable in psychological health, above and beyond other coping strategies. These studies illustrate that students who score high on coping flexibility are able to quickly identify when they are using poor coping strategies and modify their behaviors to other coping strategies, thus resulting in greater well-being. These studies also demonstrate that students who don't modify their behavior are more likely to encounter undesirable outcomes and experience difficulty adapting because of the ineffective strategies they are using to manage their transition. This coincides with Lazarus (1999) who stated that one's inability to identify a coping strategy as ineffective or one's inability to effectively cope with stressful situations leads to long-term dysfunction among individuals.

As evidence that effective coping strategies are beneficial to individuals, Baqutayan & Mai (2012) found that providing students with training on problem-focused and emotion-focused coping was an effective intervention for decreasing

student's stress. In their study, the researchers conducted an experiment where some of their participants took a 16-week coping class while others did not. The researchers found that students who took the coping class experienced decreased levels of stress over the 16-week period compared to those who did not take the coping class. In fact, students who did not take the coping class experienced more stress over the same period of time.

The literature on coping strategies illustrate that what students do when they transition to college can help them adapt to college if they engage in effective behaviors. Students can also be taught effective coping strategies to help them manage the transition to college. In order to test the role of coping strategies, and more specifically coping flexibility, in the context of college and university transitions, I will include coping flexibility and examine its relationship to college adaptation. The inclusion of this construct will allow me to examine how well coping flexibility predicts adaptation in comparison to the other factors in transition theory.

While individual strategies that students execute on their own can be helpful, they are not always enough to make it through the transition phase. Researchers have found that when social support is available, positive outcomes increase.

Social Support

As research studies have suggested, the social relationships students have with others are crucial to college adjustment (Duru, 2008). One area of transitions and adaptation that communication scholars have produced prolific research and made significant findings is support, or social support as it is known in the field of

communication. Given the communicative focus of the present study, my goal is to investigate in detail the support factor of Transition Theory by examining different sources of support and comparing their influence to other variables in Transition theory that affect adaptation.

Social support is an umbrella term that deals with how social relationships impact an individual's health and well-being (House, Umberson, & Landis, 1988). Supportive behaviors convey to an individual that he or she is valued and that someone else cares for him or her (Sarason & Sarason, 2006). As these definitions suggest, social support is a communication phenomenon. Communication is the route through which social support occurs: Individuals seek or provide support to one another through communication. Social support relies on interactions with others and on behaviors and messages that convey care and concern. Without communication, social support would not be possible, as students would not be able to ask for support, provide support, or receive support. Support is particularly relevant to the transition to college because researchers have found that support can decrease stress (Cohen & Wills, 1985; Pauley & Hesse, 2009; Wright, 2012), can help students manage academic challenges (Thompson, 2008), and can motivate students to learn (Jones, 2008).

Social support has been investigated in the context of marriage (Cutrona, 1996), families (Branje, van Aken & van Lieshout, 2002), work (Gore, 1978; La Rocco & Jones, 1978), health and sickness (Jamison & Virts, 1991; Jones, Hadjistavropoulos, & Sherry, 2012; Miczo, Miczo, & Johnson, 2006), loss (Lehman, Ellard, Wortman, 1986; Murphy, 1986), and stress (Chao, 2012; MacGeorge, Samter,

& Gillihan, 2005). Recently, researchers have expanded the scope of social support to other stressful contexts such as college (Bernardon, Babb, Hakim-Larson, & Gragg, 2011; Hirsch & Barton, 2011; Wilks & Spivey, 2010). Within the college context, researchers have investigated the types and forms of support (Thompson, 2008), outcomes associated with supportive communication (Jones, 2008), social support and persistence (Skahill, 2002), and social support and adjustment (Somera & Ellis, 1996).

Instructional communication scholars who have investigated social support have found that interactions with individuals inside (Jones, 2008; Thompson, 2008; Wang, 2012; Wheeless, Witt, Maresh, Bryand, & Schrodt, 2011) and outside (Kranstuber, Carr, & Hosek, 2012; Nazione et al., 2011) of the college campus can affect student variables for better or worse. More specifically, these influential individuals include classmates (Thompson, 2008; Thompson and Mazer, 2009), friends (Nazione et al., 2011; Wright, 2012), family members (Kranstuber et al., 2012), teachers (Jones, 2008; Wang 2012; Wheeless et al., 2011), and mentors (Nazione et al., 2011). These various sources of support are important as they point to the complexity of college adaptation and the number of ways students can be influenced when it comes to higher education. Instructional communication researchers have demonstrated that students' education and their outcomes are not a result of only those directly involved with the instructional context, but that relationships inside and outside of the classroom shape their experiences. While previous studies have increased our understanding of supportive communication, this study aims to make connections between these individual studies by examining

supportive messages from different sources and comparing how well these supportive messages predict adaptation when considering other variables in Transition theory.

Although social support is a type of coping strategy, researchers have studied social support independently from problem-focused and emotion-focused coping strategies for several reasons. First, social support is a combination of both problem-focused coping and emotion-focused coping (Credé & Niehorster, 2012). While almost all the other strategies individuals use to cope conceptually fit into either problem-focused or emotion-focused strategies, support is unique in that one supportive behavior provided by an individual can both alleviate a stressful situation and make an individual feel better (Lazarus & Folkman, 1984). Second, while problem-focused and emotion-focused strategies can be carried out by an individual without communication with others, social support requires interaction with others, thus making it a communicative process. An individual relies on others for support—one cannot provide social support to him or herself. Third, scholars have found significant results in their research that indicate social support is a unique factor and also produces significant outcomes on its own (Credé & Niehorster, 2012). These reasons have lead researchers to examine social support separately from the other two coping strategies.

Students seek and receive support from many individuals as they transition to college. Schlossberg was the first to identify the importance of support in the college transition process in her 1970 study. In her investigation of 322 men, age 35 or older who were returning to college, Schlossberg (1970) found that the men in

her study wanted more support from members working in their college institution, suggesting that the men thought that institutional support could have made a difference in their decision to stay or leave college. The nontraditional participants who were interviewed also wanted admissions officers, counselor, and faculty to be more flexible. Schlossberg's (1970) study was seminal because it was the first study to connect support and adaptation in college students' transition. Her study described the situational factors and support factors that shaped nontraditional male students' re-entry and transition process into college. The study highlighted the importance of support during the transition to college and the necessity of support if students are to adapt to the college transition. Since this seminal study, several other research studies (Jones', 2008; Perry & Hesse, 2009; Thompson, 2008; Thompson & Mazer, 2009; Wright, 2012) have confirmed the role of social support in adaptation and extended our knowledge of what social support looks like in the context of student relationships and how social support can help students manage their stress.

Support from peers. Early researchers found that social support can take four primary forms (House, 1981): (a) emotional support (sharing life experiences and providing empathy, love, trust and caring); (b) instrumental support (providing tangible assistance such as resources or physical aid); (c) informational support (providing advice, suggestions, or information); and (d) appraisal support (information that is helpful for the purpose of self-evaluation such as constructive feedback or affirmation). More recent research studies have revealed that the

support students receive from others are different from other life transitions because of the unique context of college.

Thompson's (2008) and Thompson and Mazer's (2009) research produced significant insight into how student support in college differs from support in other life transitions. They specifically investigated the caring and helpful messages that college students provide to one another. In his first study, Thompson (2008) found that in order to cope with and accommodate the academic difficulties, new or modified roles, new relationships, new routines and new assumptions that students experience when they attend college, students often communicate certain kinds of supportive messages among each other to help deal with the transition from high school to college. Thompson refers to the supportive messages that students give to one another as *student academic support.* These supportive messages come in the form of both direct help with courses and emotional support with academic issues. In his study, Thompson (2008) found that his participants communicated student academic support to each other in two ways: action-facilitating support and nurturing support.

In action-facilitating support, students helped each other with their academic problems by "providing answers to specific questions regarding schoolwork and giving advice" on assignments, giving "explanations of how to do something," offering "advice on study strategies," working together on class assignments, studying together, or reading each other's work (Thompson, 2008, p. 136). For the second type of support, Thompson defined nurturing support as when students

motivate each other by encouraging each other to do their work and also providing each other with an outlet to vent about their frustrations with classes or teachers.

In a follow up study, Mazer and Thompson (2009) further investigated the action-facilitating and nurturing support that students provide each other. The researchers found that while action-facilitating support was unidimensional, nurturing support was actually a broader category composed of distinct factors. The researchers thus broke down nurturing support into the following forms: esteem support, motivational support, and venting support. Esteem support was support that increased students' self-esteem and made students feel better. Students who provided motivational support encouraged their peers to study and attend class. Venting support was support that allowed students to vent about their classes and teachers. Thompson's studies (Thompson, 2008; Thompson & Mazer, 2009) on student academic support illustrate that one of the ways students adapt to college is by communicating about their stresses and struggles and providing each other with help or advice to overcome these issues. This typology will be used in the present study as it captures how students support each other in the college context.

Although Thompson (2008) and Thompson et al. (2009) did not directly assess adaptation, their studies provide insight into how student academic support can promote adaptation on all four dimensions of college adaptation (i.e., academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment). The results of Thompson's and Thompson et al.'s studies suggest that student academic support promotes the four dimensions of adaptation in the

following ways. First, students can help other students adjust academically by helping with classes, providing study strategies, and giving study advice. In Thompson and Mazer's (2009) study, students did this by encouraging each other to study, providing clarification on how to do an assignment, explaining how to solve a problem, and explaining or clarifying class content. Second, students can help their peers adjust socially by being their new friends and support network in college. Students stressed the significance of group work, both inside of class and outside of class, in assisting them to develop a supportive network. Third, students helped each other adjust personally and emotionally by enhancing each other's self-esteem, raising each other's confidence about school, and listening to each other vent about frustrations. Last, students helped their peers attach to the institution by creating positive experiences that they associated with the university. Students indicated that they liked having other students who were motivated in their support network because it "helped to establish a strong academic environment both inside and outside of the classroom" (p. 446). Thus, by having classmates that were also friends, students felt as though they were part of the academic institution.

In another study investigating support among friends, Wright (2012) studied the relationship between emotional support communicated via Facebook.com and perceived stress. Wright explains that since many college students use Facebook as a way to satisfy their social needs, then it should also provide a means for students to communicate support to one another. Wright investigated this assumption and learned that students who received emotional support via Facebook did perceive a reduction in stress. These aforementioned studies (Thompson, 2008; Thompson et

al., 2009; Wright, 2012) show that students help each other adapt by providing emotional support, action-facilitating support and nurturing support, and that these forms of support can buffer against the stress of the college transition.

Support from family. In addition to students' peers, communication researchers have found that students also receive support from family members even though these individuals are not directly part of the instructional process (Kranstuber et al., 2012; Nazione et al., 2011). During the transition to college, students often receive support in the form of memorable messages. A "memorable message" is a message that an individual recalls "for a long period of time and perceives the message had a major influence on the course of his or her life" (Stohl, 1986, p. 232). Individuals often receive memorable messages during times when they need guidance, transitional periods, or during situations that are confusing (Medved, Brogan, McClanahan, Morris, & Sheppherd, 2006), thus students often receive memorable messages when they are having troubling coping with college.

Kranstuber and colleagues (2012) examined the memorable messages that parents shared with their children during the transitional period of college. The researchers found that memorable messages were used to convey support, and these messages proved meaningful to students and helped them manage their college experience, thus helping students adapt to college. Students' perceptions of these memorable messages, along with sender characteristics, were significant predictors of cognitive learning, motivation, and college satisfaction.

Put into an adaptation perspective, the messages students received from their parents in Kranstuber et al.'s (2012) study contained information about

academic adjustment (messages about earning good grades and managing time), social adjustment (messages about campus involvement, community involvement, and socializing), personal-emotional adjustment (messages about facing difficulties and growing from the experience, love, encouragement, and reassurance), and institutional attachment (messages about parents' experience at the university and groups to which they belonged). Thus, parents provide information to students that can be useful to students as they make the transition to college and attempt to adapt to their new situation.

Recognizing that family support is a resource students use to help them through college, Vaux (1982) developed a scale (the Social Support Behavior Scale, or the SS-B) that specifically taps into the availability of supportive behaviors and the likelihood that a family member would carry out specific behaviors. Family members provide students with different types of supportive behaviors than would others who are part of students' social network, and the Social Support Behavior Scale captures these differences. The supportive behaviors family members provide to students include emotional support, socializing support, practical assistance, financial assistance, and advice or guidance (Vaux, Riedel, & Stewart, 1987). This scale is helpful in the present study, as it will allow me to measure supportive behaviors provided uniquely by family members and compare these supportive behaviors to the other forms of support and the other resources students use to manage the college transition.

Support from teachers. The support students receive from their instructors is another type of interaction that can make a difference in college adaptation. Jones

(2008) illustrated how students' communication with their teachers impacts their perceptions and feelings about school. Jones (2008) investigated how the social support teachers provide to their students in response to a stressful situation can impact student satisfaction and student motivation. In the study, Jones specifically examined *out-of class support*, which is defined as communication from a teacher that occurs outside the classroom setting and that shows "a responsiveness to students' needs; communicates caring, validates students' worth, feelings, or actions; and helps students manage and cope with stressful situations through the provision of information, assistance, or tangible resources" (p. 375).

The results of Jones' (2008) study indicated that students were most satisfied with and motivated to learn from teachers who provided high levels of out-of-class support, followed by teachers who provided only moderate messages of support, and were least satisfied with and motivated by teachers who did not provide any messages of support. Jones concluded that teachers can use out-of-class support to help student cope with the stresses they experience during their academic lives. In Jones' study, support helped students adapt to the academic environment by validating them and encouraging them not to give up. The teachers were seen as a valuable resource that provided the students with information on how to manage a difficult situation.

While out-of class communication is helpful to students in many ways, students often communicate with their teachers inside of class as well. Thus, one of the limitations of out-of-class support is that it does not capture the entire relationship between students and their teachers. Out-of-class support excludes in-

class interactions. These in-class interactions are more often than not the impetus for communication that takes place outside the classroom setting. In-class communication between students and teachers shape whether or not students communicate with their teachers outside of class and the nature of their communication. Thus, researchers have looked at other ways teachers communicate support to students.

Teacher confirmation refers to when teachers acknowledge and endorse their students. In other words, teacher confirmation refers to the ways a teacher positively responds to a student's identity and makes a student feel significant (Cissna & Sieburg, 1995). Teachers who confirm their students recognize their students, acknowledge their relationship with their students, express an understanding of the students' self-worth, and show support of students' experiences (Cissna & Sieburg, 1995). According to Ellis (2000), teacher confirmation behaviors include responding to students' questions and comments in a manner that depicts interest and openness to communication, demonstrating interest in students and their learning, and using a flexible and varied teaching style that helps students understand the material.

Studies conducted on teacher confirmation suggest that teacher confirmation can help students academically and emotionally adapt to college. Ellis (2000) found that teacher confirmation significantly impacted students' cognitive and affective learning. Schrodt, Turman, and Soliz (2006), found that teacher confirmation directly and indirectly effected students' perceptions of teacher credibility and students evaluations of their teachers. These studies illustrate that when teachers

engage in confirming behaviors, they positively affect how students view their studies, how they feel about their studies, and how they feel about their teachers, thus making adaption easier.

Teacher caring. Instructional communication researchers have also examined how another type of supportive behavior, *teacher caring*, can impact student learning. Teacher caring is conceptualized as a teacher's attitude toward the well-being of his or her students. Teacher caring, a dimension of teacher credibility, consists of empathy (the ability of the teacher to relate and identify with students and their feelings), understanding (the teacher's sensitivity to students' needs, ideas, and feelings), and responsiveness (the teacher's ability to recognize students' needs or problems, to respond quickly to students' needs or problem, and the teachers' willingness to listen to students; McCroskey, 1992). In the present study, teacher caring will be used to represent teacher support, as teacher caring most accurately reflects the conceptual definition of support.

Researchers have found that teacher caring has many beneficial effects on students. Teven (2007) found that students seemed to have more trust in teachers who exhibited more caring behaviors. Teven and McCroskey (1996) found that perceived teacher caring was positively related with affective learning and cognitive learning. These studies suggest that a teacher's caring behavior can help students develop more interpersonal relationships with their teachers and that teacher caring can further help students adjust by positively influencing their feelings about learning and their ability to learn course material.

The importance of support from teachers was confirmed by Pascarella and Terenzini (1979) in their study of 528 first year students. Pascarella and Terenzini found that students' pre-enrollment characteristics (race, SAT scores, high school class size, high school achievement, and psychological characteristics) were not significant predictors of first year students voluntary persistence/withdrawal when taking into account their social and academic integration and informal student-faculty contact outside of the classroom. First year students' social and academic integration accounted for 9.75 percent of the variance in freshman year voluntary persistence/withdrawal, while informal student-faculty contact outside of the classroom accounted for 14.4 percent of variance in first year students' voluntary persistence/withdrawal. Although students' characteristics are part of the overall picture in students' success and persistence/withdrawal, Pascarella and Terenzini (1979) showed that the interactions students have with their teachers during their college career are far more likely to shape their academic career above and beyond any particular individual characteristic.

Kelly, Lavergne, Boone, and Boone's (2012) study echoed Pascarella and Terenzini (1979) findings, with students indicating the importance of social factors on their decision to persist or withdrawal from college (family encouragement, positive relationships with professors, positive peer encouragement). Further evidence provided by Credé and Niehorster's (2012) meta-analysis on students' adjustment to college substantiate the importance of student-faculty interactions, where social support provided by the college institution and faculty members had the strongest relationship with academic adjustment than any other form of social

support. These social influences, especially support from teachers, are crucial because they integrate students into their college institutions (Tinto, 1993).

Taken together, the aforementioned studies on social support confirm that the communicative process of *support* is an important piece to adaptation, extend our understanding of what support messages look like, who provides support, how support works, and demonstrate the importance of social support in Schlossberg's Transition Theory.

The Role of Educational Commitment in Student Adaptation

Since the development of Transition theory researchers have explored the ways that social support affects adaptation and have more recently observed that the relationship between social support and adaptation may not be a direct relationship as was initially hypothesized, but rather an indirect relationship may exist. Studies conducted on educational commitment seem to point to a relationship between social support and one's level of educational commitment, which in turn affects adaptation (Hellman & Williams-Miller, 2005).

Educational commitment is conceptualized as one's dedication to education culminating in the completion of one's degree (Allen & Nora, 1995; Pascarella & Terenzini, 1980; 1983). The construct developed out of the organizational psychology literature, whereby researchers initially defined "commitment" as an individual's psychological bond with a social organization that decreases the individual's likelihood of willingly leaving the organization. Psychologists have since applied the construct to the context of education and have found that educational commitment serves a similar function that encourages students to stay in college.

Studies show that students who have higher levels of commitment are more likely to enroll the following semester (Hatcher, Kryter, Prus, & Fitzgerald, 1992), suggesting that commitment helps student adapt to college and university.

Both organizational commitment and educational commitment are composed of three dimensions: affective, continuance, and normative commitment. Affective commitment refers to the degree an individual identifies with, is involved in, and is emotionally attached to an organization. Affective commitment develops out of social relations as a student establishes an identity or identities that define his or her social role in the new environment; for example a student my define his or her new role as a "communication major," "university student," "student-athlete," or "sorority member" (Hellman & Williams-Miller, 2005). The identities a student develops within an institution serves to connect the individual emotionally to the organization. When a student identifies with an institution and thus has high affective commitment, he or she is likely to exert a lot of energy and show loyalty toward the institution, which the institution rewards which such things as continued membership, grades, awards, and graduation. Students feel satisfaction when their salient identities are confirmed. This mutual relationship secures together the student and the institution.

Next, continuance commitment refers to an individual's assessment of the costs and benefits associated with staying or leaving an organization (Hellman & Williams-Miller, 2005). This construct is primarily a psychological assessment that students weigh in their minds. When the costs of leaving college or university outweigh the benefits of leaving, then students are likely to stay.

Last, normative commitment refers to an individual's feeling of obligation that stems from the values of one's referent groups, such as peers, faculty, and family (Hellman & Williams-Miller, 2005). These referent groups have expectations, such as educational expectations, and these expectations constrain how an individual can behave. Through interactions with these referent groups, students learn and conform to these expectations out of a sense of obligation to the people in their referent groups. In the present study, I focus on affective and normative commitment since these two constructs are socially driven and can account for the role of communication.

The extensive research conducted on organizational commitment continuously supports the notion that organizational commitment is inversely related to turnover, positively related to job performance, and positively related to well-being (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), factors that are indicative of adjustment. In addition, researchers examining the relationship between social support and commitment have found that a positive relationship exists between support and commitment (LaMastro, 1999; Rousseau & Aubé, 2010). In particular, the more individuals perceive their organization supports and values them, the more they feel emotionally attached to (affective commitment) and obligated to stay with the organization (normative commitment; LaMastro, 1999). It seems as though having supportive peers creates an emotionally satisfying environment that develops into an attachment with and obligation to the organization (Rousseau & Aubé, 2010), thus resulting in effective adjustment and continued membership in the organization. While these relationships have been

detected in the work context, they have not been tested in an educational context. The present study tests these relationships in order to understand the process of adjustment by proposing a model that connects social support, commitment, and students' adjustment to college.

Hypotheses and Research Questions

Adaptation remains an important aspect to academic success and helping students effectively cope with the stresses of this particular life phase. Previous research studies illustrate that students' ability to manage this transition depends on several factors, and Transition theory describes these influential factors. According to Transition theory, properties of the situation, demographic and psychological characteristics, the tactics an individual uses to cope, and supportive interactions together affect an individual's ability to cope with a transition and adapt to a new situation.

In studies investigating students' transition and adaptation to college, researchers have found associations linking psychological traits, coping strategies, and social support from peers, family members, and teachers to students' adjustment. While these studies are informative, one of the limitations of the existing literature is that these studies have been conducted by examining how a specific variable is related to adaptation in isolation of other known relationships. For example, researchers have examined how self-esteem and depression are related to students' adjustment without consideration of social support. Thus the literature is fragmented and has yet to be unified in a model consistent with Transition Theory. Another limitation of previous studies is they restrict how

adaptation is understood. According to Transition theory, adaptation is a process, but the current literature fails to depict this process. Rather the current literature depicts adaptation as a series of separate associations.

The current study integrates the literature on students' adaptation by proposing a model based on transition theory that illustrates how interpersonal and individual variables function together in a process depicting adaptation. In addition, the present study introduces educational commitment as a new variable in the adaptation process. The role of commitment in the adaptation process has not yet been tested in the context of education, even though there is evidence from interpersonal and organizational communication studies indicating that commitment helps the adaptation process (LaMastro, 1999; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Rousseau & Aubé, 2010). Thus the present study also extends the existing literature by examining how educational commitment fits into the adaptation process.

Transition theory states that the psychological traits students possess shape how they perceive their new environment and how they are able to manage the transition to college. Previous researchers have identified that two particular traits, self-esteem and depression, are particularly salient when it comes to students' adjustment to college. Self-esteem and depression represent different dimensions of psychological traits: self-esteem is a functional trait that often leads to productive outcomes, while depression is a dysfunctional trait that often leads to negative outcomes. More specifically, previous studies show that self-esteem is positively related to one's physical and psychological well-being (Li, Zhang, Liu, & Cao, 2013;

Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Stupnisky, Perry, Renaud, & Hladkyj, 2013) and students' overall adjustment to college (Credé & Niehorster, 2012). Depression, on the other hand, is negatively related to constructs representing well-being (Pauley & Hesse, 2009) and students' adjustment to college (Credé & Niehorster, 2012). The following hypotheses are posed in order to retest the relationships between individual characteristics and adaptation and to examine how well these variables, together with communication variables, predict students' adaptation to college:

H1: Self-esteem predicts adaptation, such that higher self-esteem leads to better adaptation.

H2: Depression predicts adaptation, such that more depression leads to less adaptation.

In addition, previous studies illustrate that the coping strategies students use when they transition to college can help them adapt to college if they engage in effective behaviors. While students have an array of different strategies they can use to help them cope, not all strategies will be effective in helping them adjust. Some strategies may prove helpful, while other strategies may be counterproductive and even make the transition harder. Students may need to try several different strategies until they find one that helps them effectively manage the transition to college. Thus, the ability to recognize when a strategy is effective or not, and the ability to switch from one strategy that isn't helping students adjust to one that does help students adjust seems to be an important skill that affects adjustment. Thus the following hypothesis is posed:

H3: Students coping flexibility predicts adaptation, such that more coping flexibility leads to better adaptation.

While psychological traits and coping strategies shape how well students adjust to college life, the adjustment process is also a social process, and the interactions students have with various individuals inside and outside of the university setting influence how well students are able to manage the transition. Rarely, if ever, do students cope on their own, but rather they receive support from others that help them through the transition (Jones, 2008; Thompson's & Mazer, 2009). Support is different from other coping strategies in the sense that it is a combination of problem-focused and emotion-focused coping. Social support can function both to alleviate a stressful situation and make an individual feel better. Rather than individuals finding and employing two different coping strategies on their own, social support provided by others serves both these functions at once.

The studies dealing with social support illustrate that students value and need social support, that social support increases commitment, and that social support results in positive student outcomes. Previous studies show that support from peers, family, and teachers can buffer against the stressful and negative aspects of the transition, thus increasing the likelihood of adjustment (Kelly, Lavergne, Boone, & Boone, 2012; Pascarella & Terenzini, 1979). From this, the following hypotheses are posed:

H4: Peer support predicts adaptation, such that more peer support leads to better adaptation.

H5: Family support predicts adaptation, such that more family support leads to better adaptation.

H6: Teacher support predicts adaptation, such that more teacher support leads to better adaptation.

However, researchers examining commitment have provided a more nuanced understanding of how social support works, suggesting that commitment mediates the relationship between social support and students' adaptation (LaMastro, 1999; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Rousseau & Aubé, 2010). While researchers have detected linear relationships between support and commitment, and also commitment and variables indicative of adaptation, these relationships have not been synthesized into a model representing how the process of adjustment works, but rather these relationships have been investigated in isolation of one another. Furthermore, these relationships have only been tested in organizational settings, however their application to the university setting could help explain why some students are able to make the transition while others are not. Thus the following hypotheses and research questions follow:

H7: Educational commitment mediates the relationship between peer support, family support, teacher support and adaptation.

RQ1: Will support from peers, family, or teachers have the strongest direct effect on educational commitment?

RQ2: Will support from peers, family, or teachers have the strongest indirect effect on adaptation?

Communication conveying care, assistance, and value between individuals experiencing the transition and their families, peers, and instructors seems to be a defining element in whether or not students adapt to college. As the research documenting the positive effects of communicating support suggests, and as the identification of support as a unique strategy separate from other coping strategies suggests, support is crucial to the transition process and leads to adaptation. However, the results of previous studies are inconsistent, with some studies suggesting that social support may be more influential than individual characteristics (Pascarella and Terenzini, 1979; Powers, 2010), while other studies suggesting that individual characteristics are more salient in the adaptation process (Credé & Niehorster, 2012). In order to examine these inconsistencies, the present study compares the influence of each of these variables:

RQ3: How do peer support, family support, teacher support, coping flexibility, self-esteem, and depression compare to one another in terms of their effects on students adaptation to college?

While previous studies seem to suggest that educational commitment serves as a mediator between social support sources and adaptation, researchers have yet to investigate whether educational commitment is related to coping strategies, self-esteem, and depression. It seems possible that individual characteristics might predict educational commitment. For example, it is possible that a positive attitude about oneself is likely to lead to increased educational commitment since a student feels confident in his or her abilities The present study aims to explore news ways

that educational commitment might shape the adaptation process. Thus the following research question is posed:

RQ4: Does educational commitment mediate the relationship between coping strategies, self-esteem, depression, and adaptation?

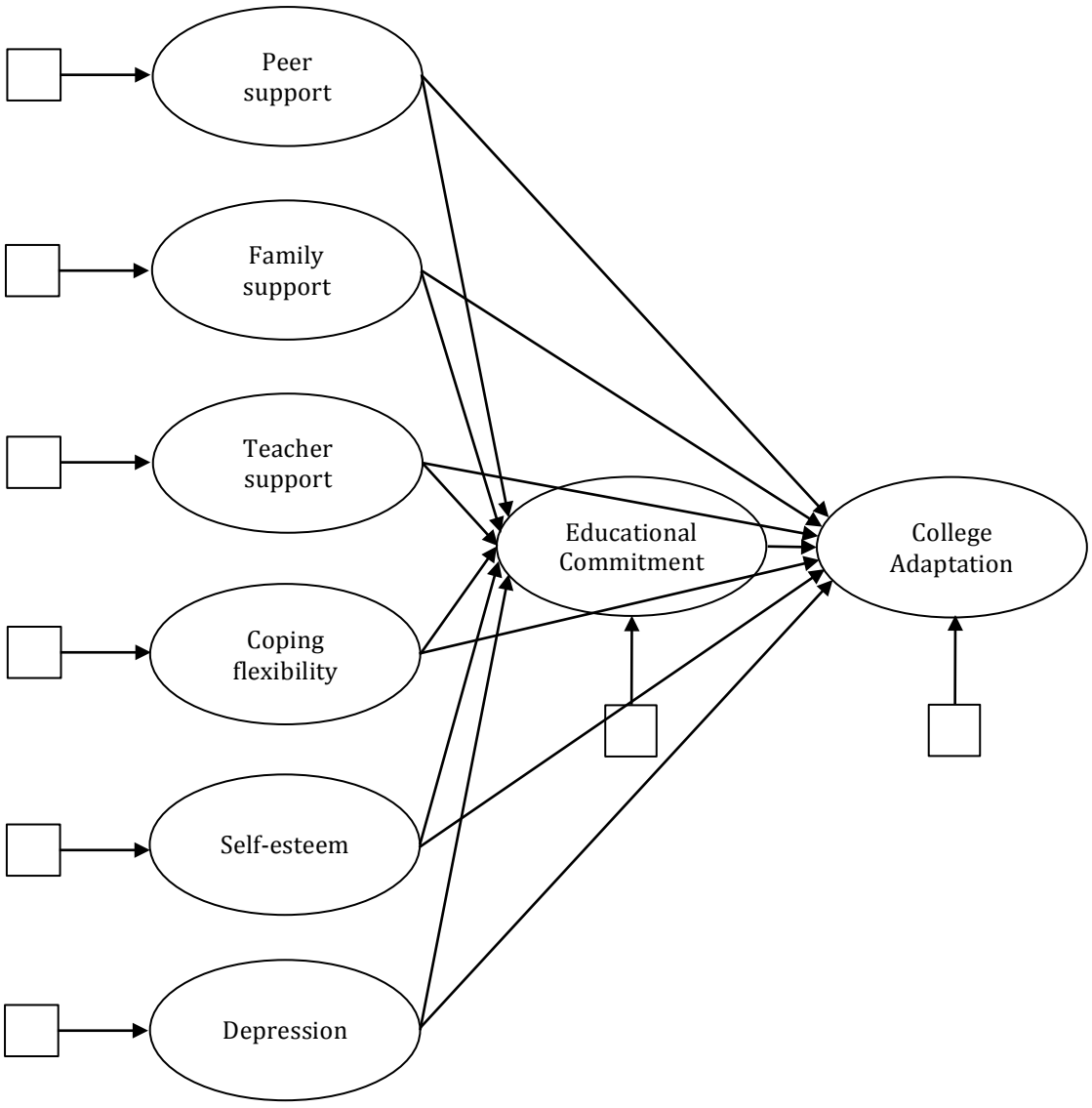
Although transition theory states that situational factors influence how an individual approaches and copes with a transition, I have not included situational variables in the present study, as previous researchers have not identified that significant relationships exists between characteristics of the transition to college and student adaptation to college. While situational variables may be important in other life transitions, it seems as though individual variables, coping strategies, and social support explain the transition and adaptation to college process above and beyond situational variables. In addition, properties of the situation are fixed, but individuals can make choices about how to manage a situation (coping flexibility) and the resources they can use (support) to help them through the transition. Since the inclusion of situational variables lacks theoretical support in the context of the transition to college, and because the focus of the present study aims to discover areas of possible intervention, I have chosen to investigate the variables that can intervene in students' transition and adaptation to college rather than variables that cannot be changed.

The proposed model depicting the research questions and hypotheses guiding the present study is depicted on page 67. In this model, educational commitment mediates the relationship between peer support, family support, teacher support, coping flexibility, self-esteem, depression, and adaptation.

In this chapter, I (a) discussed the need to examine students adaptation to college, (b) discussed how Transition Theory is a useful framework for understanding students adaptation to college, (c) conducted a review of literature that described what researchers know about students transition and adaptation to college, (d) described the importance of peer support, family support, and teacher support in the adaptation process, (e) advanced the research questions and hypotheses that guide the present study, and (f) presented a model of college adaptation. In Chapter 2, I describe the study participants, research measures, and analyses used in the study.

Figure 1

Hypothesized Saturated College Adaptation Model



CHAPTER 2: METHOD

The present study investigates how support from peers, family, and teachers, educational commitment, coping strategies, and individual characteristics are related to students' adaptation to college. According to Transition Theory, support, coping strategies, and psychological traits affect the adaptation process, yet research comparing these different variables or depicting the process of adaptation is scant. This study aims to understand the extent of the effects of these variables on students' ability to adapt, advancing the role of communication in transitions by arguing for the importance of support from peers, family, and instructors, as mediated through educational commitment, in the adaptation process. In this chapter, I discuss the methods used to conduct the present study by describing the participants, procedures, instruments, and analyses.

Recruitment

After receiving IRB approval, I recruited participants via purposive and network sampling. First, I emailed instructors at the University of Nebraska—Lincoln as well as at other institutions of higher education. I attached to the email my recruitment script, provided information regarding my study, and asked the instructors if they would announce my study in their classes. Second, I posted an announcement on Facebook describing my study and requested that those in my network pass along my recruitment script to students who fit the study's criteria and who might be interested in participating in the study. Third, I posted my recruitment script and survey link online on the University of Nebraska—Lincoln's Department of Communication Studies website. Instructors were given the option to

offer extra credit or class credit to students as incentive to participate. The recruitment script used to solicit participants for this study is available in Appendix A.

Participants

In order to participate in the study, students had to meet the following criteria: participants had to be at least 18 years old, currently enrolled full-time in their first year of college or university, and started attending college/university directly after completing high school. These criteria enabled the researcher to focus on first time, full-time, and traditional students. As discussed in Chapter 1, the first year of college is a critical year for adaptation, with poor adaptors leaving college sometime during their first year (Bradburn and Carroll, 2002; Chen, 2012; Tinto, 1993). The high percentage of students who do leave college in their first year makes the first year of college a more compelling period to study and a time period that provides the richest amount of insight into transition and adaptation issues. Since previous research studies have indicated that the college transition is particularly salient during the first year of college, the research participation criteria ensured that the focus was on students who fit this demographic.

Two hundred and eleven (211) students took the survey, of which 13 of those who took the survey didn't complete it. The 13 incomplete surveys were not included in any of the analyses. Of the remaining 198 completed surveys, one student did not fit the participation requirements as the student was not a freshman or first year student; the student indicated attending college for 35 months. Thus,

this student's responses were also excluded from all analyses. There were 197 usable surveys that were included in the study's analyses.

Participants consisted of 149 females (75.6%) and 48 males (24.4%), ranging in age from 18 to 31 years (M = 18.44, SD = 1.07). Students had been attending college/university for an average of 3.74 months (SD = 1.85, range = 1 month to 18 months). 78.7% of the participants identified as European, Caucasian, or White (n = 155), followed by 8.6% who identified as Hispanic, Latino/a, Mexican, or South America (n = 17), 7.1% who identified as other (n = 14), 3.6% who identified as Asian (n = 7), 1.5% who identified as African, African American, or Black (n = 3), 0.5% who identified as Native America (n = 1).

Procedures

In order to participate in the study, students must have first verified that they met the participation requirements and provided informed consent (see Appendix B). Students then proceeded to the online survey. The survey included measures examining peer support, family support, teacher support, educational commitment, coping flexibility, self-esteem, depression, and student adaptation (see Appendix C). In order to address response fatigue, I used shortened versions of the measures when available and reversed some items as a way to keep my participants alert. At the end of the survey, students were asked for their demographic information. After participants completed the survey, they were directed to a different web page, where they were asked to indicate their name, school, instructor, and class if they wanted to receive extra credit or class credit for their participation in the study. The research survey was located on a separate web page

from the page that asked for students' identity, and there was no way to link students to their responses.

The survey was available through a secure online website called Qualtrics. Qualtrics is a password protected website and only the researcher and other personnel conducting research in the department had access to the account. The availability of the study online allowed participants to easily access the survey and complete it during a time that was convenient for them.

Instruments

When necessary, each of the measures used in this study were slightly modified from their original version to specifically apply to the college transition from high school. As such, the wording of general statements were made more specific to apply to students and the college situation. All measures can be found in Appendix C.

Social Support

Measures assessing the communication of support to students were divided into three different categories: peers, family, and teachers. Different types of support networks offer unique forms of support, and thus researchers have developed separate scales to assess how each source of support provides different types of support. For example, while a family member may offer a student financial assistance, a classmate would more likely offer clarification on an assignment.

Peer support. For peer support (the support college students communicate to each other), I used the Student Academic Support Scale (SASS; Thompson & Mazer, 2009). The SASS is particularly suited to the present study as it specifically

measures support communicated among classmates in an academic setting (Thompson & Mazer, 2009), and thus is able to directly measure and distinguish support provided by peers from other forms and sources of support. I chose to use this scale because other scales assess support in traditional interpersonal relationships and are not specific to the college context, while Thompson and Mazer (2009) developed the SASS especially for college students to measure academic support.

The SASS in a multidimensional measure consisting of 15 items rated on a five-point Likert-type scale. The scale is composed of informational, esteem, motivational, and venting support. The SASS asks students to indicate the frequency of certain supportive behaviors provided by a friend in a class over the last month, with 1 indicating "not at all," and 5 indicating "about every day." The SASS is reliable, with previous researchers reporting alpha coefficients of .94 for informational support, .78 for esteem support, .81 for motivational support, and .84 for venting support (Mazer & Thompson, 2011). In the present study, Cronbach's α for the entire scale was .90. The SASS is also a valid measure of student academic support (Mazer & Thompson, 2011) as demonstrated by its positive relationship with the Inventory of Socially Supportive Behaviors (ISSB; Barrera & Ainlay, 1983) and other social support scales.

Family support. For support communicated by family members, I used the Social Support Behavior Scale (SS-B; Vaux, 1982). The SS-B asks students to separately rate their friends and family on five types of supportive behavior: emotional, socializing, practical, financial, and advice/guidance. Vaux's Social

Support Behavior scale is different from other scales (such as the Inventory of Socially Supportive Behaviors by Barrera, Sandler, & Ramsay, 1981) used to measure support because this scale measures the *availability* of supportive behaviors, whereas other scales measure the occurrence of supportive behaviors. Measures assessing the occurrence (i.e., frequency) of supportive behaviors are limited because they are contingent upon the type of stressor, how serious or difficult a situation is, and the number of stressors an individual is dealing with during the time the individual fills out the scale. Thus other scales measuring support are limited to comparisons of similar stressors (Vaux et al., 1987), but all students experience different levels of stress during the college transition. The SS-B is more useful and relevant in the present study as it allows comparisons of family support among individuals who are experiencing different levels of stress, different types of stress, and a range of adaptation issues.

The SS-B consists of 45 items rated on a five-point scale that indicates the probability and degree of support provided by friends and family. Items include "comforted me when I was upset," "listened when I needed to talk about my feelings," "helped me decided what to do," and "called me just to see how I was doing" (Vaux, 1982). For the present study, the SS-B will only be used to assess support provided by family members, as peer support will be assessed separately using the SASS. In addition, items measuring financial support will be removed, as previous researchers have found evidence indicating that financial support does not significantly influence students' adjustment to college or persistence to graduation (Credé and Niehorster, 2012). Previous researchers have also found that items 1, 24,

and 38 have been consistently incorrectly classified when assessing the dimensionality of the SS-B, and thus decrease the content validity of the scale (Vaux et al., 1987). As a result, items 1 ("Suggested doing something, just to take my mind off my problems"), 24 ("Called me just to see how I was doing"), and 38 ("Brought me little presents of things I needed") will be removed for the present study.

Researchers have found the SS-B to be a valid measure of family support, as significant correlations have been found between the SS-B and other support measures (Vaux, Riedel, & Stewart, 1987). Reliability for the SS-B is high, with Corcoran, Franklin, and Bennett (1998) reporting alpha coefficients of .98 for the entire family scale, and .88 through .94 for each of the various subscales. In the present study, reliability for the entire scale was high, with Cronbach's $\alpha = .98$.

Teacher support. To measure support communicated by instructors, I used McCroskey and Teven's (1999) Goodwill/Caring scale. Previous researchers have used this scale to measure students' perceptions of teacher caring (Teven & McCroskey, 1997). The Goodwill/Caring scale is a 6-item unidimensional measure with responses for each item rated on a seven-point bipolar scale. Higher scores indicate greater caring. The items include: My professors care about me/don't care about me, have my interests at heart/don't have my interests at heart, are self-centered/are not self-centered, are concerned with me/are not concerned with me, are insensitive/are sensitive, and are not understanding/are understanding.

Previous researchers have found the scale to be reliable, with previous researchers reporting alpha reliabilities greater than .90 (Banfield, Richmond, & McCroskey, 2006; McCroskey & Teven, 1999). In the present study, reliability for the

scale was .81. Researchers have also found the scale to possess good face validity (Teven & McCroskey's, 1996). In previous studies, researchers have found that teacher caring is related to students' evaluations of their teachers, students' affective learning, and students' perceptions of their cognitive learning (Teven & McCroskey's, 1996).

Educational Commitment

In order to assess students' educational commitment, I used two dimensions of Hellman and Williams-Miller's (2005) 13-item Educational Commitment scale. In particular I used the affective commitment and normative commitment dimensions of the scale since researchers have found these dimensions to be related to social support and variables indicative of adjustment. Affective commitment refers to the extent that students feel an emotional bond between themselves and the institution they are attending. In other words, part of students' identity is linked to the college or university they attend. A student who is high in affective commitment "identifies with, is involved in, and enjoys membership in" the college or university that he or she is attending (Allen & Meyer, 1990, p. 2). Normative commitment refers to the extent that students attend college because of a sense of obligation to others. In other words, students who have high normative commitment stay in school because they believe it is the right thing to do (Allen & Meyer, 1990) or because their referent groups (peers, faculty, and parents) expect them to earn a degree (Hellman & Williams-Miller, 2005).

For the affective commitment scale (ACS) and normative commitment scale (NCS), participants rated their responses on a five-point Likert-type scale, with

responses ranging from “strongly disagree (1),” “disagree (2),” “undecided (3),” “agree (4),” and “strongly agree (5).” For both scales, higher scores indicate greater commitment. The scales are reliable, with previous coefficient alpha reliabilities of .89 for the ACS, .81 for the CCS, and .73 for the NCS (Hellman & Williams-Miller, 2005). In the present study, reliability for both the ACS and NCS was .80.

Coping Flexibility

The Coping Flexibility Scale (CFS; Kato, 2012) was used to measure students’ coping flexibility. Thee scale was specifically designed to measure an individual’s ability to employ versatile coping strategies when confronted by a stressful situation. The scale is particularly fitted for the present study as the CFS was originally designed and tested to examine students coping strategies. The scale identifies the extent to which students modify their behavior when the strategies they use in a stressful situation are not helpful. The CFS captures the extent to which students are able to adapt by measuring the extent to which students change their thoughts and behaviors when they transition to college.

The CFS contains two subscales: evaluative coping which refers to recognizing when a coping strategy produces unfavorable outcomes and abandoning the ineffective strategy; and adaptive coping which refers to finding and applying an alternative strategy. Kato (2012) provided support for the validity of the CFS by finding significant correlations between the CFS subscales and other coping constructs. Previous alpha reliability coefficients for the CFS range from .71 to .81 for the evaluative coping subscale, and .87 to .90 for the adaptive coping subscale (Kato, 2012). In the present study, reliability for the entire scales was .78.

Sample items include "When a stressful situation has not improved, I try to think of other ways to cope with it" and "I am aware of how successful my attempts to cope with stress have been."

Individual Characteristics

Self-esteem. Self-esteem refers to an individual's positive or negative attitude about him or herself, or an individual's judgment of self-worth (Rosenberg, 1965) and was used to assess students' functional individual characteristics. Rosenberg's Self-Esteem scale (RSE; Rosenberg, 1965) is the most commonly used measurements of global self-esteem (Huang & Dong, 2012). The RSE has been employed in previous studies examining college students' self-esteem (Blatny, Urbanek, & Osecka, 2006; DiStefano & Motl, 2009).

The RSE is a self-report instrument that consists of ten items rated on a four-point Likert scale ranging from "I agree" to "I do not agree at all," with higher scores representing higher self-esteem. Researchers have examined the factor structure of the RSE and recommend a 1-factor solution for the instrument (Huang & Dong, 2012). Sample items include "I feel I do not have much to be proud of" and "I take a positive attitude toward myself." Reliability for the measure is high, with previous researchers reporting alpha reliability coefficients of .89 (Stupnisky et al., 2013) and .88 (Li, Zhang, Liu, & Cao, 2012). In the present study, reliability for the scale was high, $\alpha = .91$. Researchers have also found support for the validity of RSE (Bagley, Bolitho, & Bertrand, 1997; Robins, Hendin, & Trzesniewski, 2001).

Depression. The Beck Depression Inventory or BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) in one of the most popular measures of depression that

assesses the severity of depression experienced by an individual (Beck, Steer, & Garbin, 1988) and was used in the present study to assess students' dysfunctional individual characteristics. The scale has been used to analyze individuals' psychological health in many situations, including investigations that screen older adults for depression (Segal, Coolidge, Cahill, & O'Riley 2008), examine the relationship between depression and social support (Pauley & Hesse, 2009), look at how depression and suicide are related (Nyer, Holt, Pedrelli, Fava, Ameral, Cassiello, Nock, Ross, Hutchinson, & Farabuagh, 2013), and assess how interpersonal rejection effects depression in college students (Mellin, 2008).

The original BDI scale consisted of 21 items that rated the intensity of certain symptoms and attitudes that individuals experienced on a scale from 0 to 3 (or sometimes from 1 to 4), where 3 represented more intense symptoms or attitudes. The scores from each item are summed in order to obtain an overall depression score out of a possible total score of 63, with higher scores indicating more severe levels of depression. Researchers generally use the following classification when determining the severity of depression experienced by individuals: scores less than 10 represent minimal depression, scores between 10 and 18 represent mild to moderate levels of depression, scores between 19 to 29 represent moderate to severe depression, and scores between 30 to 63 represent severe depression (Beck, Steer, & Garbin, 1988).

In the present study, the shortened version of the original measure consisting of 13 items was used (Beck & Beck, 1972), with responses rated on a scale from 1 to 4. The short form of the BDI is a highly reliable scale, with previous

researchers reporting alpha reliability coefficients of .84 (Pauley & Hesse, 2009) and .90 (Borque & Beaudette, 1982) with college samples. In the present study, Cronbach's alpha was .87. The measure is also a valid scale, with researchers reporting a high correlation between the BDI and other measures of depression (Beck, Steer, & Garbin, 1988). Sample items from the scale include items examining sadness (with the following response options: 0=I do not feel sad; 1=I feel sad or blue; 2=I am blue or sad all the time and I can't snap out of it; and 3=I am so sad or unhappy that I can't stand it) and pessimism (with the following response options: 0=I am not particularly pessimistic or discouraged about my future; 1=I feel discouraged about my future; 2=I feel I have nothing to look forward to; and 3=I feel my future is hopeless and that things cannot improve.)

College Adaptation

I used Baker & Siryk's (1989) Student Adaptation to College Questionnaire (SACQ) to measure students' adaptation to college. The SACQ is the most commonly used multidimensional measure of student's adaptation to college (Credé & Niehorster, 2012). The SACQ is a self-report instrument that contains 67 items rated on a nine-point Likert-type scale (1 = applies very closely to me, and 9=doesn't apply to me at all). Together, all the items measure overall adjustment, while four subscales (with some overlapping items) measure the four dimensions of student adaptation described earlier in Chapter 1: academic adjustment (24 items), social adjustment (20 items), personal-emotional adjustment (15 items), and attachment (15 items). Higher scores indicate better overall adjustment.

Baker & Siryk (1989) state that the SACQ can be administered to students at any point during their undergraduate studies, but recommend using the instrument during students first year in college (1999). For the present study, a shortened version of the SACQ containing 43 items was used to minimize response fatigued: 13 items measured academic adjustment, 14 items measured social adjustment, 9 items measured personal- emotional adjustment, and 7 items measured attachment. Sample items include "I keep up to date with academic work" (academic adjustment), "I am satisfied with my social life" (social adjustment), "I feel blue and moody in college" (personal-emotional adjustment), and "I am pleased with my decision to go to college" (attachment).

Previous researchers using the SACQ have found the measure to be highly reliable, with Cronbach's alpha reliability coefficients for the full scale ranging from .93 to .95 for the full scale (Baker, McNeil, & Siryk, 1985). For the subscales, Cronbach's alpha reliability coefficients range from .83 to .89 for the academic adjustment subscale, .83 to .91 for the social adjustment subscale, .77 to .85 for the personal-emotional subscale, and .85 to .91 for the institutional attachment subscale (Baker & Siryk, 1999). In the present study, alpha reliability for the entire scale was .93.

Data Analysis

Structural Equation Modeling (SEM) was used to examine the hypotheses and research questions guiding the present study. SEM was chosen as the method of analysis because of its capacity to simultaneously test the hypothesized relationships among the variables (Raykov and Marcoulides, 2006). In essence, the

ability of SEM to evaluate an entire theoretical model means that communication can be studied as a process rather than as distinct sections that are tested piece by piece (Stephenson, Holbert, & Zimmerman, 2006). Other techniques (such as regression) examine one relationship (i.e., one equation) at a time in a given model, thus preventing the entire model from being evaluated as a whole or as an entire system of equations that make up the structural model.

In addition, since I used different scales (i.e., some measures were on a 4-point scale, while others are on a 5-point scale) SEM allowed me to transform my data onto the same scale, meaning I could conduct my analyses using standardized scores. This also allowed me to directly compare all of my variables since I was able to transform them onto the same scale rather than comparing raw scores on different scales.

In order to conduct my analyses, I used Muthén and Muthén's (2012) Mplus version 7. Item-level psychometric analyses and hypotheses testing of the structural model were conducted using Mplus.

Three types of techniques exist in SEM that test the structural parameters of a model (Stephenson & Holbert, 2003). The first technique involves observed variable (OV) models, also commonly known as path models. As the name suggests, the observed variable (OV) approach considers all variables in a model as observed variables. This approach uses either single-item measures or composite variables made up of multiple items that the researcher directly measures (the items are either summed or averaged to make one variable). Since all variables are directly measured, path analysis eliminates the use of confirmatory factor analysis because

there is no measurement model. However, one of the weaknesses of the OV approach is that measurement error is not accounted for in the structural model.

The second technique in SEM is called the latent composite (LC) approach. Similar to path models, the LC approach takes advantage of single-item measures or composite measures, but specifies that the single-item measure or composite measure loads on a latent construct (Holbert & Stephenson, 2002). In addition, LC models are not limited to single indicator latent constructs alone, but rather latent constructs that use several indicators can be included in the model as well. An advantage of the LC approach is that measurement error is accounted for in the structural model.

The third technique in SEM is the hybrid (HY) approach. Rather than using single-item or composite variables, all measured variables load individually on their corresponding latent construct (Holbert & Stephenson, 2002). This approach is considered a complete latent variable model and is composed of measurement parameters and structural parameters (Stephenson & Holbert, 2003). The HY approach as well as the LC approach consists of two steps: an analysis of the measurement model using confirmatory factor analysis and then an analysis of the structural model. Like the LC approach, the HY approach accounts for measurement error.

Initially, the latent composite approach to SEM was employed. However, upon analyzing the measurement component of the model, an improper solution was reached. In particular, an analysis of one of the latent constructs (i.e., coping strategies) resulted in a negative variance, also known as a Heywood case (Chen,

Bollen, Paxton, Curran, & Kirby, 2001). Negative variances are considered improper solutions because variances must always be positive given that variances are squared standard deviations (Chen, Bollen, Paxton, Curran, & Kirby, 2001). While negative variances are impossible values, scholars have noted that these improper solutions are not unusual in factor analysis and SEM. Negative variances can occur because of several reasons, including a small sample size, sampling fluctuations, nonconvergence, under-identification, or the presence of outliers (Chen, Bollen, Paxton, Curran, & Kirby, 2001). Unfortunately, the negative variance prevented further analysis of the structural model.

In order to address the problem associated with negative variance, path analysis was employed rather than the latent composite approach to SEM. Since all variables in the model were composite variables, this technique fit the present study and allowed for the model to be estimated without generating improper solutions. The observed variables in the present study were composite variables created by averaging the scores across all items for each measure. As Stephenson & Holbert (2003) state, it is justifiable to use the OV approach when modeling single items or composite variables made up of multiple items, especially when the reliability of a multiple-item measure is high. Thus, a path analysis was conducted without encountering problems or errors such as improper solutions, nonconvergence, or under-identification.

Preliminary Item-Level Psychometric Analysis of Measures

The analysis began by assessing the validity and reliability of the measures used in the present study. This analysis of a measure's psychometric properties is

important in path analysis because measurement error is not taken into account. Thus, confirmatory factor analysis (CFA) was conducted to assess each measure's validity and reliability (Kline, 2005; Levine, 2005). CFA was useful for item-level analyses for several reasons: First, CFA allowed me to examine whether the items in each measure actually measured the constructs they were presumed to represent (Levine, 2005,). In other words, CFA assessed whether each item used to measure a construct actually measured the same concept. Since all items from each individual measure were later combined to form a composite variable when testing the structural model, item level CFA ensured the validity of the composite variables.

Second, CFA allowed me to assess whether the measures I used function similarly in my sample as they did in other samples. That is, CFA allowed me to examine whether the factor structure of previously published measures were the same in my sample and also allowed me to detect any problems in the measures I used before conducting my primary analysis (Levine, 2006). Since the measures used were adapted for the present study, CFA allowed me to assess whether slight changes to the items influenced the relationship between the items and their constructs (Levine, Hullett, Turner, & Lapinski, 2006).

Third, CFA allowed me to assess the reliability of each measure by examining the extent to which item responses were consistent with other item responses across a measure. Thus item-level CFA was an important step in the preparation and screening of my data before I conducted any primary analyses as it assessed the internal structure of the measures I used.

Only unidimensional measures were analyzed using CFA for the preliminary item-level psychometric analyses, as unidimensionality is a prerequisite for this step. Thus, teacher support, self-esteem, and depression underwent an item-level CFA analysis, while peer support, family support, educational commitment, coping flexibility, and student adaptation to college were excluded from the item-level analysis because of their lack of unidimensionality.

Model fit for each construct was assessed using several criteria: model χ^2, RMSEA with 90% confidence interval, CFI, and SRMR. The chi-square test of model fit (χ^2) is a goodness-of-fit index that assesses how well an assumed model fits the observed data. The χ^2 test statistic compares the expected covariances with the observed sample covariances, where a nonsignificant test statistic suggests that there is no difference between the hypothesized covariances and the observed covariances (Barrett, 2007).

According to Kline (2005), higher model χ^2 values indicate poor model fit while lower χ^2 values indicate better fit. However because the statistic is sensitive to sample size and the size of the correlations in a model, the model may be rejected despite only slight differences between the observed and predicted covariances (Kline, 2005). The RMSEA also assesses model fit. The RMSEA is an absolute measure of fit index, meaning that a model fits perfectly if it has a fit of zero, and thus the test statistic identifies how far a model is from perfect. RMSEA values less than or equal to .05 designate close approximate fit, values between .05 and .08 designate reasonable error of approximation, and values greater than or equal to .10 designate poor model fit (Brown & Cudeck, 1993).

The CFI is an incremental or comparative fit index. The closer the value is to zero, the worst the fit, while a value of one indicates the best model fit. Thus CFI values greater than .90 suggest a reasonably good model fit (Hu & Bentler, 1999). Lastly, SRMR, another absolute measure of fit, was also used to assess model fit. This index assesses how well a hypothesized model fits the observed data. SRMR values less than .10 are considered favorable, while higher values indicate poor fit (Kline, 2005).

If initial model fit for a measure was poor, I conducted a specification search (Raykov & Marcoulides, 2006) by examining the modification indices, looking for sources of local model strain, and looking for ways to improve model fit. Local model strain refers to problems located in a measurement model (as opposed to the structural model) that decrease model fit. These sources of poor fit must be identified and address otherwise they later cause problems in the structural model. Suggested modifications with values of 10.0 or greater were examined as a way to improve model fit, however the decision to remove items from each measure was based on both the suggested modifications and theoretical support. Any items removed at this stage were also removed from further analyses.

Primary Data Analysis

After completing the item-level psychometric analyses, I conducted a path analysis to analyze the hypothesized relationships among the exogenous and endogenous variables. For estimation of the path model, robust maximum likelihood (MLM) was used as the estimator since MLM is "robust to non-normality" (Muthén & Muthén, 2012, p. 603). Other researchers have used MLM (also known as the

Satorra-Bentler chi-square) to protect against nonnormality (Muthén & Asparouhov, 2002) and in the present study this estimator was chosen as researchers have observed that mediation effects violate the normality assumption (Bollen & Stine, 1990; McKinnon & Dwyer, 1993; MacKinnon, Lockwood, & Williams, 2004; Stone & Sobel, 1990).

The model was tested for partial and full mediation using the steps established by Baron & Kenny (1986). These steps are as follows: a) first, the independent variable must have a significant effect on the dependent variable; b) second, the independent variable must have a significant effect on the mediator variable; c) third, the mediator variable must effect the dependent variable; and d) last, the previously significant relationship between the independent variable and dependent variable decreases in size when the impact of the mediator is controlled, or the relationship is no longer significant. Full mediation is concluded if the path coefficients from the exogenous variables (i.e., peer support, family support, teacher support, coping strategies, self-esteem, and depression) to adaptation are no longer significant after including educational commitment. Partial mediation is concluded if the path coefficients from the exogenous variables to adaptation are reduced in size when controlling for the mediator (i.e., educational commitment), but these path coefficients are still greater than zero when educational commitment is included (Baron & Kenny, 1986).

Direct effects from the exogenous variables (i.e., peer support, family support, teacher support, coping strategies, self-esteem, and depression) to adaptation were tested, as well as the indirect effects from the exogenous variables

transmitted through educational commitment to adaptation. The path coefficients between each variable represented the direct effects, while indirect effects were calculated using the product of the direct effects. The Sobel test was used to test whether the indirect effects were significant or not. Significant paths to and from educational commitment indicate mediation, while non-significant paths indicate there is no mediation. Last, total effects were calculated by summing all the direct and indirect effects for each variable (Kline, 2005).

Summary

In the present chapter, I described the participants who took part in the study, the procedures used to conduct the research, the instruments used to measure the variables under investigation, and the approach to data analysis used to test the hypotheses and examine the research questions guiding this dissertation. Demographic information for the participants was provided, as well as a description of how the data was collected, the measures used in the survey, and the use of path analysis to answer the questions posed in the present study. In the next chapter I provide the results of the analysis. In Chapter 4, I discuss the results, the limitations of the study, and future research directions.

CHAPTER 3: RESULTS

The primary purpose of this study was to test the effects of different sources of support (peer, family, and teacher), coping flexibility, self-esteem, and depression on students' adaptation to higher education, and to test whether educational commitment mediated these relationships. This chapter reports the results of the data analysis. Table 1 reports the correlations among all variables. First, the results of the preliminary item-level psychometric analysis are reported. These preliminary item-level psychometric results provide information about the validity and reliability of the measures used in the study. Next, the results of the path analysis are presented. The results of the path analysis provide information that answers the hypotheses and research questions guiding the present investigation.

Preliminary Item-Level Psychometric Analysis of Measures

Teacher Support

The six-item perceived caring measure was used to assess teacher support. Items one, two, and four were first reversed coded and then model fit was assessed. Initial model fit was unacceptable: χ^2 (9) = 155.46, p < .01, RMSEA = .29 (*CI* = .25 — .33), CFI = .71, and SRMR = .14. An examination of the modification indices suggested several modifications. In particular, item five ("My professors are insensitive/sensitive") and item six ("My professors are not understanding/are understanding)" were sources of local model strain. Of these two items, item six was the least contributing item and was thus deleted. After deleting item six, model fit was still poor: χ^2 (5) = 57.31, p < .01, RMSEA = .23 (*CI* = .18 — .29), CFI = .86, and SRMR = .10.

An examination of the modification indices suggested that item five ("My professors are insensitive/sensitive") was still a source of local model strain. After item five was deleted, model fit was excellent: χ^2 (2) = 5.61, p > .05, RMSEA = .10 (*CI* = .00 — .19), CFI = .99, and SRMR = .02. The deletion of items five and six from the model resulted in no further suggested modifications in the modification indices. Items five and six were deleted from all further analysis and a composite variable for participants' scores was created by averaging the remaining four items. Table 2 provides the means, standard deviations, standardized item estimates, and standardized errors for all remaining items.

Self-Esteem

Rosenberg's (1965) ten-item self-esteem scale was used to measure students' global self-esteem. Items two, five, seven, nine, and ten were first reversed-coded and then model fit was assessed. Initial model fit was unacceptable: χ^2 (35) = 189.92, p < .01, RMSEA = .15 (*CI* = .13 - .17), CFI = .86, and SRMR = .06. An examination of the modification indices suggested several possible modifications to improve model fit. In particular, item nine ("I certainly feel useless at times") had a large covariance with item ten ("At times I think I am no good at all"). Both these items are similar in that they assess students' negative feelings about their abilities. Since item nine was the least contributing item it was deleted from the model.

After removing item nine from the measure, model fit marginally improved but was still unacceptable: χ^2 (27) = 112.10, p < .01, RMSEA = .13 (*CI* = .10 - .15), CFI = .91, and SRMR = .05. Further examination of the modification indices suggested that item ten ("At times I think I am no good at all") was still a source of local model

strain and was consequently removed, resulting in acceptable model fit: χ^2 (20) = 77.68, p < .01, RMSEA = .12 (*CI* = .09 - .15), CFI = .92, and SRMR = .05. An examination of the modification indices suggested a few modifications, but these suggested modifications would not significantly improve model fit, and thus the decision was made to retain the remaining eight items. Items nine and ten were deleted from all further analysis and a composite variable for participants' scores were created by averaging the remaining items. Table 3 provides the means, standard deviations, standardized item estimates, and standardized errors for all remaining items.

Depression

Student depression was measured using the thirteen-item Beck depression inventory—Short form (Beck & Beck, 1972). Initial model fit was reasonable: χ^2 (65) = 133.59, p < .01, RMSEA = .07 (*CI* = .06 - .09), CFI = .93, and SRMR = .05. An examination of the modification indices suggested a couple of modifications, but these modifications would only slightly improve model fit without producing significant improvements in the model. Thus, the decision was made to retain all thirteen items. A composite variable for participants' depression scores were created by averaging all thirteen items. Table 4 provides the item statistics and standardized estimates for the remaining eight items.

For each of the remaining variables, separate composites were created by averaging all the corresponding items in each measure. Thus, peer support, family support, educational commitment, coping flexibility, and adaptation were each

represented by a corresponding composite variable. A summary of the means and standard deviations for all variables are presented in Table 5.

Table 1

Correlations Among All Variables

	1	2	3	4	5	6	7	8
1. Peer Support	-	.126	.02	.17*	.05	.04	.16*	–.02
2. Family Support		-	.22**	.22**	.36**	–.32**	.25**	.38**
3. Teacher Support			-	.19**	.26**	–.33**	.24**	.40**
4. Coping Flexibility				-	.42**	–.26**	.18**	.36**
5. Self-Esteem					-	–.68**	.34**	.71**
6. Depression						-	–.22**	–.68**
7. Educational commitment							-	.51**
8. Adaptation								-

Note. * $p < .05$ and ** $p <. 01$.

Table 2

Teacher Support CFA Item Statistics and Standardized Estimates

Item	*M (SD)*	Factor Loading *(SE)*	Intercept *(SE)*	Residual Variance *(SE)*	Factor R^2 *(SE)*
My professors…					
1. Care about me/don't care about me.	4.64 (1.45)	.87 (.03)	3.21 (.18)	.24 (.05)	.76 (.05)
2. Have my interests at heart/don't have my interests at heart.	4.69 (1.39)	.82 (.03)	3.38 (.19)	.32 (.05)	.68 (.05)
3. Are self-interested/are not self-interested.	4.89 (1.56)	.26 (.07)	3.14 (.17)	.93 (.04)	.07 (.04)*
4. Are concerned with me/are not concerned with me.	4.53 (1.41)	.80 (.03)	3.23 (.18)	.36 (.05)	.64 (.05)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$ unless otherwise noted. * $p = .07$.

Table 3

Self-esteem CFA Item Statistics and Standardized Estimates

Item	*M (SD)*	Factor Loading *(SE)*	Intercept *(SE)*	Residual Variance *(SE)*	Factor R^2 *(SE)*
1. I feel that I am a person of worth, at least on an equal plane with others.	4.16 (.89)	.79 (.03)	4.67 (.25)	.37 (.05)	.63 (.05)
2. All in all, I am inclined to feel that I am a failure.	4.01 (1.05)	.61 (.05)	3.82 (.21)	.62 (.06)	.38 (.06)
3. I feel that I have a number of good qualities.	4.16 (.89)	.76 (.04)	4.70 (.25)	.43 (.05)	.57 (.05)
4. I am able to do things as well as most other people.	4.02 (.86)	.65 (.05)	4.70 (.25)	.58 (.06)	.42 (.06)
5. I feel I do not have much to be proud of.	4.03 (1.04)	.69 (.04)	3.89 (.21)	.53 (.06)	.47 (.06)
6. I take a positive attitude toward myself.	3.84 (1.06)	.83 (.03)	3.62 (.20)	.31 (.05)	.69 (.05)
7. I wish I could have more respect for myself.	3.22 (1.29)	.55 (.05)	2.51 (.15)	.70 (.06)	.30 (.06)
8. On the whole, I am satisfied with myself.	3.79 (1.05)	.77 (.03)	3.62 (.20)	.41 (.05)	.59 (.05)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Table 4

Depression CFA Item Statistics and Standardized Estimates

Item	*M (SD)*	Factor Loading *(SE)*	Intercept *(SE)*	Residual Variance *(SE)*	Factor R^2 *(SE)*
1. Sadness	1.77 (.77)	.71 (.04)	2.29 (.14)	.49 (.06)	.51 (.06)
2. Pessimism	1.37 (.65)	.71 (.04	2.13 (.13)	.49 (.06)	.51 (.06)
3. Sense of Failure	1.42 (.76)	.74 (.04)	1.89 (.12)	.45 (.05)	.55 (.05)
4. Dissatisfaction	1.39 (.72)	.75 (.04)	1.94 (.12)	.43 (.05)	.57 (.05)
5. Guilt	1.41 (.70)	.68 (.04)	2.03 (.12)	.53 (.06)	.47 (.06)
6. Self-dislike	1.47 (.70)	.75 (.04)	2.14 (.13)	.44 (.05)	.56 (.05)
7. Self-harm	1.08 (.29)	.52 (.06)	3.71 (.20)	.74 (.06)	.27 (.06)
8. Social withdrawal	1.42 (.67)	.64 (.05)	2.13 (.13)	.59 (.06)	.41 (.06)
9. Indecisiveness	1.82 (.81)	.53 (.06)	2.25 (.13)	.72 (.06)	.28 (.06)
10. Self-image change	1.65 (.84)	.56 (.05)	1.96 (.12)	.69 (.06)	.31 (.06)
11. Work difficulty	1.55 (.69)	.58 (.05)	2.26 (.13)	.66 (.06)	.34 (.06)
12. Fatigability	1.77 (.78)	.52 (.06)	2.27 (.14)	.73 (.06)	.27 (.06)
13. Appetite	2.10 (.98)	.49 (.06)	2.14 (.13)	.76 (.06)	.24 (.06)

Note. All factor loadings, intercepts, residual variances, and R^2 were significant at $p < .001$.

Table 5

Means and Standard Deviations for All Variables

Variable	*M (SD)*
Peer Support	2.51 (.70)
Family Support	4.16 (.82)
Teacher Support	4.68 (1.03)
Coping Flexibility	2.74 (.43)
Self-esteem	3.90 (.76)
Depression	1.55. (.49)
Educational Commitment	4.36 (.53)
Adaptation	6.24 (1.16)

Primary Data Analysis

The path analysis tested the effects of different sources of support (peer, family, and teacher), coping flexibility, self-esteem, and depression on students' adaptation to higher education when mediated through educational commitment. The analysis began by testing the saturated model of students' adaptation to college, where all direct and indirect paths to adaptation were tested. After running the saturated model, nonsignificant paths were removed in order to refine the model. The model was then tested with the remaining significant paths in order to examine model fit. As in the preliminary data analysis, model fit for the path model was assessed using model χ^2, RMSEA with 90% confidence interval, CFI, and SRMSR.

Model fit for the unsaturated model was excellent, χ^2 (2) = 2.93, p = .23, χ^2 scaling correction factor = .87; RMSEA = .05 (CI = .00 - .16); CFI = 1.0; SRMR = .01. Altogether, the entire model accounted for 68% of the variance in adaptation. Table 6 provides parameter estimates and standard error estimates for the final college adaptation model. Table 7 provides the direct, indirect, and total effects for the exogenous variables and endogenous variables. Figure 2 provides a depiction of the final college adaptation model with standardized estimates.

Table 6

Parameter Estimates and Standard Errors for Final College Adaptation Model

Model Parameter	Unstandardized Estimate (Standard Error)	Standardized Estimate (Standard Error)
Loadings/Effects on Educational Commitment		
Peer support	.10* (.05)	.13* (.07)
Family support	.07*(.04)	.11* (.06)
Teacher support	.07* (.04)	.15* (.07)
Coping flexibility	– .005 (09)	– .004 (08)
Self-esteem	.18** (.05)	.26** (.07)
Depression	.07 (.11)	.06 (.10)
Loadings/Effects on College Adjustment		
Peer support	– .12* (.07)	– .07* (.04)
Family support	.09 (.06)	.06 (.04)
Teacher support	.14** (.05)	.13** (.05)
Coping flexibility	.17 (.12)	.06 (.04)
Self-esteem	.53** (.08)	.35** (.05)
Depression	– .81** (.13)	– .33** (.05)
Educational commitment	.64** (.10)	.29** (.05)

Note. * $p < .05$ and ** $p <. 01$.

Table 7

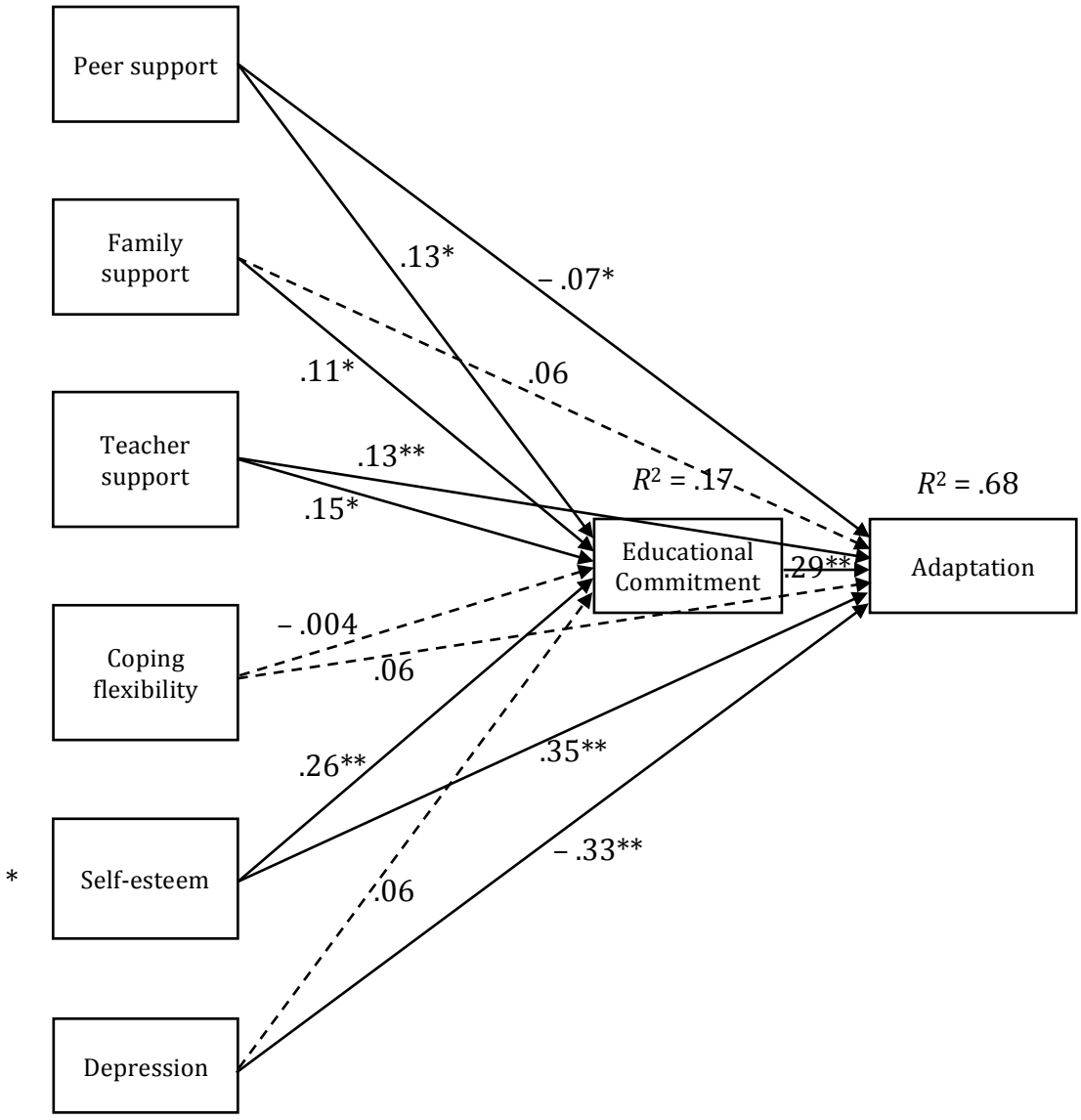
Direct, Indirect, and Total Effects for Exogenous and Endogenous Variables on Adaptation

Variable	Direct effect	Indirect effect	Total effect
Peer support	–.07*	.04*	–.03
Family support	06	.03*	.03
Teacher support	.13*	.04*	.17
Educational commitment	.29**	--	.29
Coping flexibility	.06	.00	--
Self-esteem	.35**	.08**	.43
Depression	–.33**	.02	–.33

Note: All effects reported are standardized estimates. Total effects were calculated using only significant paths. Significance of indirect effects (mediation) were determined using Sobel's Test. * $p < .05$ and ** $p <. 01$.

Figure 2

Final College Adaptation Model



Note: All parameters are standardized. Broken lines indicate non-significant paths and solid lines indicate significant paths.

Hypothesis 1 proposed that self-esteem predicted adaptation, such that higher self-esteem would lead to better adaptation. This hypothesis was supported. Self-esteem directly predicted students' adjustment and also had indirect effects on adaptation. As self-esteem increased, this caused a direct increase in adaptation (β = .35). A student with self-esteem one full standard deviation above the mean was predicted to have an adaptation level of .35 standard deviations above the mean, when peer support, family support, teacher support, depression and educational commitment were controlled. Self-esteem also had a significant positive indirect effect of .08 on students' adaptation.

Hypothesis 2 proposed that depression predicted adaptation, such that more depression would lead to less adaptation. Hypothesis 2 was supported. Depression was a direct predictor of adaptation. As depression increased, adaptation decreased (β = – .33). A student with depression one full standard deviation above the mean was predicted to have an adaptation level of .33 standard deviations below the mean, when peer support, family support, teacher support, self-esteem and educational commitment were controlled.

Hypothesis 3 stated students coping flexibility predicted adaptation, such that more coping flexibility would lead to better adaptation. Hypothesis 3 was not supported. Coping flexibility was not a significant direct or indirect predictor of students' adaptation.

Hypothesis 4 stated peer support predicted adaptation, such that more peer support would lead to better adaptation. Hypothesis 4 was partially supported. While peer support was a direct predictor of students' adaptation as hypothesized,

peer support had an opposite effect on adaptation than was hypothesized. As peer support increased, this lead to a decrease in adaptation. A student who received peer support one full standard deviation above the mean was predicted to have an adaptation level of .07 standard deviations below the mean, when family support, teacher support, self-esteem, depression, and educational commitment were controlled. In addition, peer support had an indirect effect on adaptation (.04).

Hypothesis 5 predicted more family support would lead to better adaptation. Hypothesis 5 was partially supported. Family support was not a significant direct predictor of students' adaptation, but indirectly predicted students' adaptation (β = .03) when mediated through educational commitment.

Hypothesis 6 predicted more teacher support would lead to better adaptation. Hypothesis 6 was supported. As teacher support increased, adaptation also increased (β = .13). A student who received teacher support one full standard deviation above the mean was predicted to have an adaptation level of .13 standard deviations above the mean, when peer support, family support, self-esteem, depression, and educational commitment were controlled. In addition, teacher support had an indirect effect of .04 when mediated through educational commitment.

Hypothesis 7 stated educational commitment mediated the relationship between peer support, family support, teacher support and adaptation. This hypothesis was supported. Educational commitment served as a partial mediator between peer support and adaptation, with a significant indirect effect (β = .04) on adaptation. Surprisingly, this indirect effect was the opposite direction of the direct

effect detected in hypothesis 4. For family support, educational commitment served as a full mediator between family support and adaptation, with family support having a significant indirect effect on adaptation (β = .03). Last, teacher support was partially mediated by educational commitment, with both a significant indirect effect (β = .04) on adaptation and also a significant direct effect (β = .13) as discussed earlier in hypothesis 6.

One unexpected finding concerning hypothesis 7 was the discovery of a suppression effect (also known as "inconsistent mediation") between peer support, educational commitment, and adaptation. The presence of the suppression effect was detected using the criteria discussed by MacKinnon, Krull, and Lockwood (2000): the total effect of peer support (β = −.03) was closer to zero than the direct effect (β = −.07) of peer support on adaptation, and the indirect effect from the mediator (educational commitment) to the criterion (β = .29) had an opposite sign to the direct effect (β = −.07). While the indirect effect of peer support on adaptation was positive (β = .04), the direct effect of peer support on adaptation was negative (β = −.07), leading to an overall total negative effect on adaptation (β = −.03). Although social support is thought to help adjustment, peer support actually had the opposite effect in the present model. More peer support caused a decrease in students' adaptation to college. Table 7 provides the direct, indirect, and total effects for all exogenous variables and endogenous variables.

Research question 1 asked whether support from peers, family, or teachers would have the strongest direct effect on educational commitment. Teacher support had the strongest direct effect on educational commitment (β = .15), followed by

peer support (β = .13), and finally family support (β = .11). However, when all exogenous variables were included in this analysis, self-esteem had the strongest effect on educational commitment.

Research question 2 asked whether support from peers, family, or teachers would have the strongest indirect effect on adaptation. Teacher support (β = .04) and peer support (β = .04) both had equivalent indirect effects on students' adaptation, followed by family support (β = .03).

Research question 3 explored how peer support, family support, teacher support, coping flexibility, self-esteem, and depression compared to one another in terms of their effects on students adaptation to college. Self-esteem (total effect on adaptation = .43) had the largest effect on students' adaptation, followed by depression (total effect on adaptation = −.33), then teacher support (total effect on adaptation = .17), and finally both peer (total effect on adaptation = −.03) and family support (total effect on adaptation = .03) had the smallest effects of adaptation. Coping strategies was not a significant direct or indirect predictor of adaptation.

Research question 4 explored whether educational commitment mediated the relationship between coping strategies, self-esteem, depression, and adaptation. The analysis revealed educational commitment also mediated the relationship between self-esteem and adaptation. In particular, self-esteem had a significant indirect effect (β = .08) on adaptation in addition to its direct effect on adaptation (β = .35) discussed in hypothesis 1. Coping flexibility and depression did not have significant effects on educational commitment. Together, peer support, family

support, teacher support, and self-esteem account for 17% of the variance in educational commitment.

Conclusion

The results of the path analysis described in the present chapter indicate that peer support, family support, teacher support, self-esteem, depression, and educational commitment all contribute to students' adaptation to college. While the role of educational commitment in the process of students' adaptation to college has not been clearly identified up to this point, the present study revealed that educational commitment mediated the relationship between the predictors of peer support, family support, teacher support and self-esteem and the criterion variable adaptation. Depression and self-esteem were the strongest predictors of students' adaptation to college followed by the social support variables. Also, surprisingly, peer support had an opposite effect on adaptation; rather than the expected positive effect, peer support had a total negative affect on adaptation. All variables in the hypothesized model, except coping flexibility, were significant predictors of adaptation. Table 8 provides a summary of the findings for all hypotheses and Table 9 provides a summary of the findings for all research questions investigated in the present study.

Table 8

Summary of Findings From Hypotheses

	Hypothesis	Findings
H1	Self-esteem predicts adaptation, such that higher self-esteem leads to better adaptation.	Supported
H2	Depression predicts adaptation, such that more depression leads to less adaptation.	Supported
H3	Students coping flexibility predicts adaptation, such that more coping flexibility leads to better adaptation.	Not supported. Coping flexibility was not a significant direct or indirect predictor.
H4	Peer support predicts adaptation, such that more peer support leads to better adaptation.	Partially supported. Peer support was a direct predictor, but the relationship was negative.
H5	Family support predicts adaptation, such that more family support leads to better adaptation.	Partially supported. Family support was not a significant direct predictor, but did have significant positive indirect effects.
H6	Teacher support predicts adaptation, such that more teacher support leads to better adaptation.	Supported
H7	Educational commitment mediates the relationship between peer support, family support, teacher support and adaptation.	Supported

Table 9

Summary of Findings From Research Questions

	Research Question	Findings
RQ1	Will support from peers, family, or teachers have the strongest direct effect on educational commitment?	Teacher support (β = .15), peer support (β = .13), and then family support (β = .11).
RQ2	Will support from peers, family, or teachers have the strongest indirect effect on adaptation?	Teacher support (β = .04) and peer support (β = .04), and then family support (β = .03).
RQ3	How do peer support, family support, teacher support, coping flexibility, self-esteem, and depression compare to one another in terms of their effects on students adaptation to college?	Self-esteem had the largest total effect on adaptation (.43), then depression (−.33), teacher support (.17), peer support (−.03), and family support (.03)
RQ4	Does educational commitment mediate the relationship between coping strategies, self-esteem, depression, and adaptation?	Educational commitment mediated the relationship between self-esteem and adaptation (β = .08)

CHAPTER 4: DISCUSSION

The purpose of the present study was to examine how a variety of interpersonal and individual factors together and separately effected students' adaptation to college. Using Transition theory to integrate the previous literature, a model depicting the process of adaptation was proposed. While the literature has thus far represented adaptation as a series of isolated relationships, the present study extended the current literature by illustrating adaptation as a process and showing how adaptation works. Using variables representing social support, coping strategies, individual characteristics, and educational commitment, a model representing the adaptation process was tested.

The present study was unique from previous studies as a new variable was introduced into the adaption process: that is educational commitment was hypothesized to mediate the relationship between the predictor variables and adaptation. Mediation effects have been largely unexamined in the adaptation process and in Transition theory, but the present study posited that educational commitment influenced how the other variables functioned in the process of students' adaptation to college. In general, the results supported a mediation model of students' adjustment. The results of the investigation indicated that adaptation is indeed a complex process that is shaped by a student's level of self-esteem, the amount of depression a student is experiencing, how committed a student is to his or her education, and the social support provided by a student's peers, family, and teachers.

The following chapter is dedicated to explaining what the results mean and connecting the results to Transition Theory and the existing literature. First, I discuss the results and the significance of the results according to each variable examined in the present study. I then move onto the implications of the study, discuss the limitations of the study, and conclude with directions for future research.

The Significance of Social Support, Individual Characteristics, and Educational Commitment on Students' Adaptation to College

The present study extends our understanding of the transition and adaptation process by clearly identifying and comparing the effects of individual-level variables and interpersonal variables, and by illustrating how these variables together effect the adaptation process. Together, the findings indicate that while adaptation is greatly influenced by individual characteristics, these variables alone do not determine the course of students' transition and adaptation, but rather the process is sensitive to the interactions students have with their teachers, peers, and family members. Furthermore, the effects of social support from various individuals and self-esteem are not only direct, but educational commitment can help explain how these variables are related to adaptation as well. Last, while coping strategies were hypothesized to influence students' adaptation to college, students' coping flexibility was in fact not a significant predictor of adaptation. Consequently, the present results refine transition theory, delineate the variables that do and don't predict students' adaptation to higher education, and depict how the these variables function to influence students adjustment.

Educational Commitment

The construct of educational commitment has received little or no attention in the college adjustment literature. As demonstrated by Credé & Niehorster's (2012) meta-analysis, educational commitment was missing from the numerous studies used in their research. Even in the transition theory literature, commitment has not made its way into how researchers conceptualize the process of transition and adaptation. However, the findings in support of Hypotheses 7 and the results examining Research Questions 1 through 4 clearly identify the importance of educational commitment: Educational commitment indeed explains how peer support, family support, teacher support and self-esteem indirectly effect students' adjustment to higher education. While organizational communication scholars have detected the relationship between social support and commitment in the workplace (Rousseau & Aubé, 2010), this study verifies that the relationship between social support and commitment applies to educational contexts as well.

Similarly, while interpersonal communication scholars have confirmed that relational commitment predicts adjustment (Rusbult, Martz, & Agnew, 1998), the present study verifies that this relationship extends to the college context; that is, educational commitment predicts college adjustment. In essence, the present study was able to synthesize the literature that presented commitment as both an outcome variable and as a predictor variable by identifying educational commitment as a mediator variable.

The role of educational commitment in the present study seems to suggest that adjustment is more complex than the transition model predicted. Educational

commitment acted as a mediator variable for all but one predictor (i.e., depression). In the case of peer support, teacher support, and self-esteem, educational commitment served as a partial mediator between these predictor variables and adaptation, thus adding indirect effects to the direct effects already caused by these predictor variables. In the case of family support, educational commitment served as a full mediator, thus explaining how family support and student adaptation are related to one another. Without the inclusion of educational commitment in the present model, it would appear that support from members of a student's family does not predict adaptation even though previous studies have identified family support as a significant predictor of students' adjustment (Credé & Niehorster, 2012).

Individual Traits

Overall, the results of the present study indicate that self-esteem followed by depression are the strongest predictors of students' adaptation to college compared to the support provided by various members of students' support networks. Previous studies have found mixed results in terms of whether individual or social variables exert greater effects on students outcomes, with some studies citing social interactions as the most important predictors of student withdrawal or persistence (Pascarella and Terenzini, 1979) while others have found that psychological traits and states have a larger influence on students' adjustment (Credé & Niehorster, 2012). In the present investigation, the findings indicated that individual traits were the strongest predictors of students' adjustment to college. While the results generally support Credé & Niehorster's (2012) meta-analytic findings that

individual traits and states are the most significant variables when it comes to student adaptation, it is also important to note that the present results were slightly different from the findings of previous studies.

Credé & Niehorster (2012), for example, found that depression was actually the strongest predictor of adaptation when comparing demographic variables, core self-evaluations, psychological trait and state variables, social support variables, and coping variables. The results from previous research studies may be different from the results obtained from the present study because of the inclusion of a mediator variable. Indeed, educational commitment added indirect effects to the direct effects caused by self-esteem, which thus increased the total effect of self-esteem on adaptation. While direct effects have been the focus of much of the previous literature, the present study revealed that mediation effects may change our understanding of the relationships involved in the process of adaptation.

Depression. Depression was the second largest direct predictor of adaptation. Students with higher levels of depression struggled to adapt, whereas students with lower levels of depression found it easier to adjust to college. One explanation for this is that students with high levels of depression are likely to isolate themselves (Li, Zhang, Liu, & Cao, 2013), thus preventing behaviors or coping strategies that could otherwise help them adapt, such as attending class or seeking help from others. This makes sense given that depression was negatively related to family support and teacher support. In addition, depression was the only exogenous variable that did not have mediation effects.

Self-esteem. Self-esteem was the strongest direct predictor of students' adaptation to college, and when taking into account its indirect influence on students' adaptation through educational commitment, self-esteem also had the largest total effect on adaptation of all the variables examined. Thus, while previous researchers have only examined the direct influence of self-esteem on adaptation, the present study revealed a new relationship; that is self-esteem also operates through educational commitment. Previous scholars have proposed that having a positive attitude about oneself effects students' adjustment because it productively shapes the way students view their new environment, manage their new environment, and deal with the problems they encounter upon transitioning to college (Stupnisky, Perry, Renaud, & Hlladkyj, 2013). While educational commitment has not previously been linked to self-esteem, it makes sense that higher self-esteem will lead students to become more committed to their education since these students will likely believe they have the ability to finish their education and will thus invest more time and resources into their education, which in turn leads to adaptation.

Coping Flexibility

Coping flexibility was the only variable in the model that did not have either significant direct or indirect effects on adaptation. According to the findings, the ability to recognize when a strategy is effectively helping a student cope or when a strategy is not helpful, and the ability to switch to other coping strategies does not significantly influence students' ability to adjust. The lack of predictive power of coping flexibility suggests that while one's capacity to evaluate certain coping

strategies as effective or ineffective and one's ability to change coping strategies shape adjustment in other types of life transitions (Felton & Revenson, 1984; Harris, Heller, & Braddock, 1988), coping flexibility plays a minor in the transition to higher education when taking into consideration psychological traits and social support sources.

One possible explanation for this is perhaps social support fulfills the function of coping strategies in the context of higher education. When students need help coping or find their attempts to cope ineffective, they may turn to others for help and these interactions may substitute for other individual coping mechanisms they may have otherwise used.

Social Support

Despite the findings that self-esteem and depression were the strongest predictors of adaptation, these findings do not negate the role of social support. The college adjustment process is not something that students do on their own, but rather communication from individuals in their social network also impact how students acclimate to the university. Taking a relational and communicative perspective when studying adjustment provides a unique advantage because it locates adjustment as a process that occurs between people, rather than a process that simply occurs inside of people.

Peer support, family support, and teacher support were all significant predictors of students' adaptation, and thus verify that supportive communication from various individuals do make a difference in students transition to college. In contrast to more stable and less flexible characteristics (i.e., self-esteem and

depression), supportive communication stemming from peers, family, and teachers provides a more accessible means of assisting students' adjustment process.

Teacher support. Overall, teacher support had the strongest total effect (i.e., direct and indirect combined) on students' adaptation to college when compared with the other two sources of support. The finding that teacher support was the largest predictor of students' adaptation among the social support variables verifies pervious research studies that have also found that faculty are the most influential sources of support when it comes to students' adjustment to college (Credé & Niehorster, 2012). Individuals who are directly part of the college institution, whom students believe represent the institution, and whom are directly related to students learning have a bigger impact on students' adaptation compared to family members whom are removed from the learning environment and other students who are also going through the transition. Students likely view teachers as representatives of their college institution and tie teachers largely to their experiences in college since they have the most contact with these members of the college institution, and therefore place more significance on their interactions with their instructors.

Peer support. Peer support, in the form of student academic support (Thompson, 2008), has not previously been linked to college adjustment, and thus the present study has provided a new application for the construct that explains how communication can shape student outcomes. Peer support exerted both direct effects and indirect effects on students' adaptation. Interestingly, peer support tied with family support as the smallest predictor variable of adjustment. Given that

classmates are directly part of the adjustment context, it seems that peer support should have had a larger influence on students' adjustment than family members who are removed from the educational context.

Perhaps one reason that could explain why the total effect of peer support on adaptation was the same as family support was the contradictory direct and indirect effects of peer support on students' adjustment. These opposite effects reduced the total effect of peer support. Contrary to Hypothesis 4, peer support had an unexpected negative direct effect on adaptation, but a positive indirect effect. Since the direct and indirect effects were in opposite directions, this lead to a smaller total effect when all effects were summed together.

When students communicate with each other about their teachers, classes, assignments, and other academic issues, the present study found that these interactions directly hurt students' ability to adjust to college. While this negative effect of peer support has not been documented previously, other findings regarding how peers can negatively impact each other are present in the literature. For example, researchers have found that social integration can decrease persistence (Mamiseishvili, 2012) and that social support can cause an increase in alcohol consumption (Pauley & Hesse, 2009). One explanation may be that peer support directly harms students' adaptation because students become reliant on their classmates for their learning rather than trying to process and learn information on their own, thus thwarting academic adjustment.

However, the indirect effect of peer support was positive. When students engage in student academic support, these interactions lead to an increase in

affective and normative commitment, which in turn leads to better college adjustment. In other words, while peer support directly decreased students' adjustment, this effect became positive when mediated through educational commitment and thus indirectly increased students' adjustment. The results from the present study suggest that educational commitment actually mitigated the harmful effects of peer support. Perhaps peer support increases one's educational commitment because a student feels obligated to stay in college since his or her friends are in college and thus creates a norm for attending college and motivation for a student to adjust. This explanation is in line with the definition for normative commitment, which states that the expectations shared by one's social groups, such as one's peers, define an individual's roles and restrain an individual's behavior, and thus creates a sense of obligation to fulfill the expectation to adjust to college (Hellman & Williams-Miller, 2005).

Family support. Last, family support matched peer support as having the smallest effect on students' adjustment to college. Compared to the other variables in the model, this effect was completely indirect and thus completely mediated by educational commitment. It seems that family members helped students adjust by increasing their desire to stay in college and motivating them to continue their education. Supportive communication provided by family members likely contributes to students' adjustment the least because family members are not situated inside of the university context. Family members can probably only help their sons and daughters when their sons and daughters ask for help since they are located on the outskirts of the transition process. In other words, parents and

siblings are dependent on students communicating about the transition and adjustment process, whereas teachers and peers are directly involved with the process.

Since the effect was small, this finding suggests that while parents can do little during the adaptation process, parents and family members can prepare in advance to help students when the are going through the adjustment process. Before students enter college, parents can start communicating their support to students, informing students that they are available to help, listen, or give advice whenever they need and encouraging students of their abilities. In a sense, parents could prepare their sons and daughters for the support they will later need. Communicating their support before the adjustment process may make it more likely that students will seek the help of their family later during the adjustment process when they need help.

Implications of Findings

In light of the resources that colleges and universities devote to helping students transition and adjust to higher education, the results of the present study have both practical and theoretical implications. In terms of pragmatic implications, institutions of higher education can develop specific programs and interventions that focus on ways to increase students' educational commitment and adjustment. First and foremost, evidence from the present study shows that colleges and universities should focus their efforts on bolstering students' self-esteem and reducing depression since these variables have the greatest effects on college adjustment. While these matters are often left to students to individually seek out

help from campus counseling and psychological services, leaving these matters to students to manage alone no longer seems to be an effective response.

In fact, when students are left with the responsibility of seeking help on their own, students often do not use the support services that are available to them (Benson, Hewitt, Devos, Crosling, & Heagney, 2009). Given that self-esteem and depression affect not only students' personal lives, but also their educational outcomes, colleges and universities need to address these issues on a much broader level.

Second, the evidence from the present study suggests that in order to support the adjustment process, colleges and universities should create more opportunities for students to interact with faculty members and provide family members with more training on how to support their sons and daughters. Oftentimes college administrators and faculty view involvement from students' family members pessimistically and as a sign of interference (for example, the notion of "helicopter parents"), but the results from the present study show that family members do have a place in their sons and daughters transition process and can productively help them adjust by helping with personal and emotional matters. Third, peer support is often seen as a one-sided coin, for example previous literature has focused only on the positive effects of peer support (MacGeorge, Samter, & Gillihan, 2005; Smith & Peterson, 2007; Wright, 2012). However, the present study reveals that students need to be informed about how peer support can also negatively affect them.

One way that colleges and universities can address the suggestions recommended above is by addressing students' adjustment difficulties systematically with classes or workshops that center on those issues. For example, many institutions of higher education require new students to take student orientation workshops before enrolling in their first semester courses. One of these required workshops could be dedicated to student adjustment problems and provide students with information and training on self-esteem, how to manage their depression, and how to seek and effectively use social support from various sources. A workshop with these added dimensions could greatly aid in students' development and help them adjust to the college transition.

Similarly, family members are often not well equipped on how they can best aid their sons or daughters in their transition to college. Colleges and universities could also offer a workshop for the parents of new college students that teach family members how they can support their sons and daughters through the transition and adjustment process.

Theoretically, the findings of the present study extends Schlossberg's (Schlossberg, Waters, & Goodman, 1995) transition model to traditional students move from high school to college and refines the theory by identifying mediation effects. The present study also illustrates how adjustment is both a social process and psychological process. The results depict how the transition process works and how college transitions are different from other life transitions. Since all life transitions are different, the present study shows that peer support, family support,

teacher support, self-esteem, depression, and educational commitment are variables that can affect students' well-being and functioning in their new environment.

In spite of the findings of this study, it is just one piece of a much bigger puzzle. Many questions are yet to be answered and need investigation. The results of the present investigation should be understood with the following limitations and future research in mind.

Limitations of Study and Directions for Future Research

There are several limitations that should be considered when interpreting the results of the present investigation. In particular, the homogeneity of the sample, the measures used, and the statements of causality warrant cautious interpretation. First, concerning the homogeneity of the sample, a majority of the participants were white females in their first year of college, which limits the generalizability of the results. Students of differing backgrounds may vary in how they use their social support networks, the level of depression they experience, and their degree of self-esteem because of gender or cultural differences, but the present study did not account for these differences.

Mortenson (2006) for example, found that American students were more likely than Chinese students to seek social support when they were frustrated and disappointed with their academics. In addition, Credé and Niehorster, (2012) found a weak but significant association between sex and overall student adjustment and minority status and student adjustment. Thus the extent to which supportive

communication, depression, or self-esteem effects adjustment is likely to differ based on different demographic characteristics.

Future research should investigate how demographic characteristics affect the adjustment process so that students from various groups can also benefit from the information gleaned and so that more specific programs can be developed that address different subpopulations. In addition, it is likely that for some students the transition process lasts past their first year and they continue to encounter difficulties in their later years of college. However, the present study included only students who were in their first year of college. Research that investigates the differences between shorter and longer transitions could shed light on how to reduce the transition period for all students.

Second, the measures and variables used may have masked more specific findings. For example, while a measure of global self-esteem was used in the present study, the use of specific self-esteem may have garnered different or more refined results. Consistent with the present study, Rosenberg, Schooler, Schoenbach, and Rosenberg (1995) found that students' global self-esteem was associated more with psychological well-being compared to students' academic self-esteem, however the researchers went a step further and found that students' *academic* self-esteem (i.e., a specific type of self-esteem) predicted school performance more accurately.

Thus researchers can tease out the findings from the present study by investigating more specific variables and thus reveal more detailed relationships. Along the same lines, in regards to the variables used in the present study, many of

the measures were multi-dimensional and better represented as latent constructs, however each variable was analyzed as an observed composite variable.

Future researchers should take into consideration the multi-dimensionality of latent constructs and examine how these affect the results. It is likely that each dimension of a variable in the present study had specific effects on the criterion variables, but the present study was not able to capture these effects. Understanding how supportive communication, depression, self-esteem, and educational commitment affect all aspects of adaptation (i.e., academic adjustment, social adjustment, personal-emotional adjustment, and attachment) can provide more precise information about the transition process.

Third, while path analysis was used to identify statistical causality, the data used was correlational. For true causality to be determined, researchers need to design and use experiments that isolate the variables they are interested in and use random samples of students across various stages of their educational career. Only when experimental control is used can true causality be identified.

In addition to the recommendations above, future inquiries into students' adaptation need to examine other variables that affect students' adaptation as the present model did not capture the entire process of adaptation. For example, while Transition theory posits that the characteristics of a situation shape adaptation, the present study did not include situational variables, as previous findings were unclear about what situational variables shaped students' adjustment. However, it is likely that the way students perceive the transition shape how they cope with and adapt to the transition. Previous studies have identified that the novelty and

uncertainty (Lazarus & Folkman, 1984) associated with other life transitions affect adaptation, and it would be insightful to understand how similar situational properties affect students' adaptation process.

In addition, investigations that include mediator variables can provide a more comprehensive understanding of the relationships involved in the adjustment process. As the present study illustrated with educational commitment, mediator variables can uncover new relationships that were previously unknown and can also change the nature of the relationships. For example, when educational commitment was tested as a mediator variable, a direct negative effect on students' adaptation became a positive effect when this third variable was introduced.

Finally, while researchers have extensively examined the benefits of supportive communication, the present study has highlighted the need to explore the ways that variables can be both functional and dysfunctional. Variables that have traditionally been regarded in a positive light may in fact also cause negative consequences, and it would be beneficial to both students and those concerned with student adjustment to understand how human behavior can cause a myriad of effects. Investigations that explore the dark side of supportive communication in students' adjustment processes can increase our understanding of how to help students who have difficulty transitioning into college.

REFERENCES

Albrecht, T. (1982). Coping with occupational stress: Relational individual strategies of nurses in acute health care settings. In M. Burgoon (Ed.), *Communication Yearbook 6*. Beverly Hills, CA: Sage.

Allen, M., Witt, P.L., & Wheeless, L.R., (2006). The role of teacher immediacy as a motivational factor in student learning: Using Meta-Analysis to test a causal model. *Communication Education, 55*, 21-31. doi: 10.1080/03634520500343368

Anglin, D.M., & Wade, J.C. (2007). Racial socialization, racial identity, and black students' adjustment to college. *Cultural Diversity and Ethnic Minority Psychology, 13*, 207-215. doi: 10.1037.1099-9809.13.3.207.

Anshel, M.H., Kaissidis, A.N. (1997). Coping style and situational appraisals as predictors of coping strategies following stressful events in sport as a function of gender and skill level. *British Journal of Psychology, 88*, 263-276. doi: 10.1111/j.2044-8295.1997.tb02634.x

Aspelmeier, J.E., Love, M.M., McGill, L.A., Elliott, A.N., & Pierce, T.W. (2012). Self-esteem, locus of control, college adjustment, and GPA among first- and continuing-generation students: A moderator model of generational status. *Research In Higher Education, 53,* 755-781. doi: 10.1007/s11162-011-9252-1

Aspinwall, L.G., & Taylor, S.E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology, 63*(6), 989-1003. doi: 10.1037/0022-3514.63.6.989

Aud, S. Hussar, W., Johnson, F., Kena, G., Rothe, E., Manning, E., Wang, X., and Zhang, J. (2012). *The Condition of Education 2012* (NCES 2012-045). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrived from http://nces.ed.gov/pubsearch

Bagley, C., Bolitho, F., & Bertrand, L. (1997). Norms and construct validity of the Rosenberg Self-Esteem scale in Canadian high school populations: Implications for counseling. *Canadian Journal of Counseling, 31*, 82-92.

Baker, R.W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179-189.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50*, 248-287. doi: 10.1016/0749-5978(91)90022-L

Banfield, S.R., Richmond, V.P., & McCroskey, J.C. (2006). The effect of teacher misbehaviors on teacher credibility and affect for the teacher. *Communication Education, 55*, 63-72. doi: 10.1080/03634520500343400

Baqutayan, S.M.S., & Mai, M.M. (2012). Stress, strain, and coping mechanisms: An experimental study of fresh college students. *Academy of Educational Leadership Journal, 16,* 19-30.

Barrera, M.J., & Ainlay, S.L. (1983). The structure of social support: A conceptual and empirical analysis. Journal of Community Psychology, 11, 133-143. doi: 10.1002/15206629(198304)11:2<133::AID-JCOP2290110207>3.0CO;2-L

Barrett, P. (2007). Structural Equation Modelling: Adjudging model fit. *Personality and Individual Differences, 42,* 815-824. doi: 10.1016/j.paid.2006.09.018

Barron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182. doi: 10.1037/0022-3514.51.6.1173

Bauer, J.J., & McAdams, D.P. (2004). Personal growth in adults' stories of life transitions. *Journal of Personality, 72*, 573-602. doi: 10.1111/j.0022-3506.2004.00273.x

Bayer, A.E. (1968). The college drop-out: Factors affecting senior college completion. *Sociology of Education, 14,* 305-316.

Beck. A.T., & Beck, R.W. (1972). Screening depressed patients in family practice: A rapid technique. *Postgraduate Medicine, 52*, 81-85.

Beck, A.T., Steer, R.A., & Garbin, M.G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*, 77-100. doi: 10.1016/0272-7358(88)90050-5

Beck, A.T., Ward, C.H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561-571. doi: 10.1001/archpsyc.1961.01710120031004

Belsky, J., Spanier, G.B., & Rovine, M. (1983). Stability and change in marriage across the transition to parenthood. *Journal of Marriage and Family, 45*, 567-577.

Benjamin, M., Earnest, K., Gruenewald, D., & Arthur, G. (2007). The first weeks of the first year. In E.L. Moore (Ed.) *Student Affairs Staff as Teachers*. San Francisco: Jossey-Bass. doi: 10.1002/ss.229

Benito, R., & Alegre, M.A. (2012). The changing patterns of individual and school effects on educational transitions. Evidence from Catalan data (Spain). *Educational Research, 54*, 65-87. doi: 10.1080/00131881.2012.658200

Benson, R., Hewitt, L., Devos, A., Crosling, G., Heagney, M. (2009). *Experiences from diverse backgrounds: the role of academic support*. Paper presented at the 32nd Higher Education Research and Development Society of Australasia, Darwin, Australia.

Bernardon, S., Babb, K.A., Hakim-Larson, J., & Gragg, M. (2011). Loneliness, attachment, and the perception and use of social support in university students. *Canadian Journal of Behavioural Science, 43*, 40-51. doi:10.1037/a0021199

Bigby, C., Wilson, N.J., Balandin, S., & Stancliffe, R.J. (2011). Disconnected expectations: Staff, family, and supported employee perspectives about retirement. *Journal of Intellectual & Developmental Disability, 36,* 167-174. doi: 10.3109/13668250.2011.598852

Blantý, M., Urbánek, T., & Osecká, L. (2006). Structure of Rosenberg's self-esteem scale: Three-factor solution. *Studia Psychologica, 48*, 371-378.

Blaskovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J.P. Robinson, P.R., Shaver, & L.S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115-159). San Diego, CA: Academic Press.

Bohnert, A.M., Aikins, J.W., & Edidin, J. (2007). The role of organized activities in facilitating social adaptation across the transition to college. *Journal of Adolescent Research, 22*(2), 189-208. doi: 10.1177/0743558406297940

Bollen, K.A. (1989). *Structural equations with latent variables*. New York: Wiley.

Bollen, K.A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological methodology, 20*, 115-140. doi: 10.2307/271084

Borque, P., & Beaudette, D. (1982). Psychometric study of the Beck Depression Inventory in a sample of French-speaking university students. *Canadian Journal of Behavioral Science, 14,* 211-218.

Boujut, E., & Bruchon-Schweitzer, M. (2009). A construction and validation of a freshman stress questionnaire: An exploratory study. *Psychological Reports, 104*, 680-692. doi: 10.2466/pr0.104.2.680-692

Bradburn, E.M., & Carroll, C.D. (2002). *Short-term enrollment in postsecondary education: Student background and institutional differences in reasons for early departure, 1996-98*. U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003153

Briggs, A.R.J., Clark, J., & Hall, I. (2012). Building bridges: Understanding student transition to university. *Quality in Higher Education, 18*, 3-21. doi: 10.1080/13538322.2011.614468

Brown, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.), Testing structural equation models (pp. 136-162). Newbury Park, CA: Sage.

Cabrera, A.F., Stampen, J.O., & Hansen, W.L. (1990). Exploring the effects of the ability to pay on persistence in college. *The Review of Higher Education, 13*, 303-336.

Champagne, D.E., & Peptitpas, A. (1989). Planning developmental interventions for adult students. *NASPA Journal, 26(4),* 265-271.

Chernick, M.R. (2008). *Bootstrap methods: A guide for practitioners and researchers* (2nd ed.). Hoboken, New Jersey: John Wiley & Sons.

Chickering, A.W, & Schlossberg, N.K. (2002). *Getting the most out of college* (2nd ed). Upper Saddle River, New Jersey: Pearson Education.

Chen, R. (2012). Institutional characteristics and college student dropout risks: A multilevel event history analysis. *Research in Higher Education, 53(5),* 487-505. doi: 10.1007/s11162-011-9241-4

Cheung, G.W., & Lau, R.S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods, 11*, 296-325. doi: 10.1177/1094428107300343.

Cissna, K.N., & Sieburg, E. (1995). Patterns of interactional confirmation and disconfirmation. In J. Stewart (Ed.), *Bridges not walls: A book about interpersonal communication* (6th ed) (pp. 237-246). New York: McGraw-Hill.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.

Comadena, M.E., Hunt, S.K., & Simonds, C.J. (2007). The effects of teacher clarity, nonverbal immediacy, and caring on student motivation, affective and

cognitive learning. *Communication Education, 24*, 241-248. doi: 10.1080/08824090701446617

Cooley, E. J., & Toray, T. (2001). Disordered eating in college freshman women: A prospective study. *Journal of American College Health, 49,* 229-235. doi: 10.1080/07448480109596308

Corcoran, J., Franklin, C., & Bennett, P. (1998). The use of the social support behaviors scale with adolescents. *Research on Social Work Practice, 8*, 302-314. doi: 10.1177/104973159800800304

Coster, J.S., & Schwebel, M. (1997). Well-functioning in professional psychologists. *Professional Psychology: Research and Practice, 28*, 5-13. doi: 10.1037/0735-7028.28.1.5

Crawford, F. (2007). *The impact of income and minority status in the prediction of college student persistence and graduation in a reform context* (Doctoral dissertation). Available from ProQuest Dissertations and Theses databases. (UMI No. 3293535)

Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the students adaptaion to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review, 24*, 133-165. doi: 10.1007/s10648-011-9184-5

Cutrona, C. E. (1996). Social support as a determinant of marital quality: The interplay of negative and supportive behaviors. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of social support and family* (pp.173-194). New York: Plenum.

DiStefano, C., & Motl, R.W. (2009). Self-esteem and method effects associated with negatively worded items: Investigating factorial invariance by sex. Structural Equation Modeling, 16, 134-146. doi: 10.1080/10705510802565403.

Dolen, M.R., & Shultz, K.S. (1998). Comparison of organizational, professional, university, and academic commitment scales. *Psychological Reports, 82*, 1232-1234. doi: 10.2466/pr0.1998.82.3c.1232

Duru, E. (2008). The predictive analysis of adjustment difficulties from loneliness, social support, and social connectedness. *Educational Sciences: Theory & Practice, 8*, 849-856.

Dyson, R., & Renk, K. (2006). Freshman adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology, 62*, 1231-1244. doi: 10.1002/jclp.20295

Ellis, K. (2000). Perceived teacher confirmation: The development and validation of an instrument and two studies of the relationship to cognitive and affective learning. *Human Communication Research, 26*, 264-291. doi: 10.1111/j.1468-2958.2000.tb00758.x

Erdfelder, E., Faul, F., & Buchner, A. (1996) GPOWER: A general power analysis program. *Behavioral Research Methods, Instruments, & Computers*, 28, 1-11. doi: 10.3758/BF03203630

Feldman, D.C., & Brett, J.M. (1983). Coping with new jobs: A comparative study of new hires and job changers. *Academy of Management Journal, 26*, 258-272. doi: 10.2307/255974

Felton, B.J., & Revenson, T.A. (1984). Coping with chronic illness: A study of illness controllability and the influence of coping strategies on psychological adjustment. *Journal of Consulting and Clinical Psychology, 52*, 343-353. doi: 10.1037/0022-006X.52.3.343

Fischer, M.J. (2007). Settling into campus life: Differences by race/ethnicity in college involvement and outcomes. *Journal of Higher Education, 78*, 125-161. doi: 10.1353/jhe.2007.0009

Fisher, C.D. (1985). Social support and adjustment to work: A longitudinal study. *Journal of Management, 11*, 39-53. doi: 10.1177/014920638501100304

Folkman, S., & Lazarus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*, 219-239.

Folkman, S., & Lazarus, R.S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48,* 150-170. doi: 10.1037/0022-3514.48.1.150

Folkman, S., Lazarus, R.,S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. (1986). The dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology, 50*, 992-1003. doi: 10.1037/0022-3514.50.5.992

Galatzer-Levy, I.R., Burton, C.L., & Bonanno, G.A. (2012). Coping flexibility, potentially traumatic life events, and resilience: A prospective study of college student adjustment. *Journal of Social and Clinical Psychology, 31(6),* 542-567. doi: 10.1521/jscp.2012.31.6.542

Goguen, L.M.S., Hiester, M.A., & Nordstrom, A.H. (2010). Associations among peer relationships, academic achievement, and persistence in college. *Journal of College Student Retention, 12*, 319-337. doi: 10.2190/CS.12.3.d

Goldberg, L.R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4*, 26-42. doi: 10.1037/1040-3590.4.1.26

Goldberg, L.R., Sweeney, D., Merenda, P.F., & Hughes, J.E. (1998). Demographic variables and personality: The effects of gender, age, education, and ethnic/racial status on self-descriptions of personality attributes. *Personality and Individual Differences, 24*, 393-403. doi: 10.1016/S0191-8869(97)00110-4

Goodboy, A. K., & Bolkan, S. (2009). College teacher misbehaviors: Direct and indirect effects on student communication behavior and traditional learning outcomes. *Western Journal of Communication, 73*, 204-219. doi: 10.1080/10570310902856089

Goodboy, A.K., & Myers, S.A. (2008). The effect of teacher confirmation on student communication and learning outcomes. *Communication Education, 57,* 153-179. doi: 10/1080.03634520701787777

Gore. G. (1978). The effect of social support in moderating the health consequences of unemployment. *Journal of Health and Social Behavior, 19,* 157-165. doi: 10.2307/2136531

Gorham, J., & Christophel, D. M. (1992). Students' perceptions of teacher behaviors as motivating and demotivating factors in college classes. *Communication Quarterly, 40,* 239-252. doi: 10.1080/01463379209369839

Gorham, J., & Millette, D. M. (1997). A comparative analysis of teacher and student perceptions of sources of motivation and demotivation in college classes. *Communication Education, 46*, 245-261. doi: 10.1080/03634529709379099

Hamilton, S., & Hamilton, M. (2006). School, work, and emerging adulthood. In J. Arnett & J. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 440-473). Washington, DC: American Psychological Association.

Harris, M.M., Heller, T., & Braddock, D. (1988). Sex differences in psychological well-being during a facility closure. *Journal of Management, 14*, 391-402. doi: 10.1177/014920638801400303

Hatcher, L., Kryter, K., Prus, K.J., & Fitzgerald, V. (1992). Predicting college student satisfaction, commitment, and attrition from investment model constructs. *Journal of Applied Social Psychology, 22*, 1273-1296. doi: 10.1111/j.1559-1816.1992.tb00950.x

Hellman, C.H., & Williams-Miller, J. (2005). A JARCC toolbox article – Development of a multidimensional educational commitment scale. *Journal of Applied Research in Community College, 13*, 19-30.

Hirsch, J. K., & Barton, A. L. (2011). Positive social support, negative social exchanges, and suicidal behavior in college students. *Journal of American College Health, 59*, 393-398. Doi: 10.1080/07448481.2010.515635

Hirose, E.I., Wada, S., & Watanabe, H. (1999). Effects of self-efficacy on adjustment to college. *Japanese Psychological Research, 41*, 163-172. doi: 10.1111/1468-5884.00115

Holbert, R.L., & Stephenson, M.T. (2002). Structural equation modeling in the Communication Sciences, 1995-2000. *Human Communication Research, 28*, 531-551. doi: 10.1111/j.1468-2958.2202.tb00822.x

House, J. S. (1981). *Work stress and social support.* Reading, MA: Addison-Wesley.

House, J. S., Umberson, D., & Landis, K.R. (1988). Structures and processes of social support. *Annual Review of Sociology, 14*, 293-318. doi: 10.1146/annurev.so.14.080188.001453

Houser, M. L., & Frymier, A. B. (2009). The role of student characteristics and teacher behaviors in students' learner empowerment. *Communication Education, 58*, 35-53. doi: 10.1080/03634520802237383

Hu, L.-T., & Bentler, P.M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1-55. doi: 10.1080/10705519909540118

Huang, C., & Dong, N. (2012). Factor structures of the Rosenberg Self-Esteem Scale: A meta-analysis of pattern matrices. *European Journal of Psychological Assessment, 28*, 132-138. doi: 10.1027/1015-5759/a000101

Jaasma, M. A., & Koper, R. J. (1999). The relationship of student-faculty out-of-class communication to instructor immediacy and trust and to student motivation. *Communication Education, 48*, 41-47. doi: 10.1080/03634529909379151

Jackson, D.L. (2003). Revisiting sample size and number of parameter estimates: Some support for the *N:q* hypothesis. *Structural Equation Modeling, 10*, 128-141. doi: 10.1207/S15328007SEM1001_6

Jamison, R., & Virts, K. L. (1991). The influence of family support on chronic pain. *Behavior Research and Therapy, 28*, 283-287.

Jencks, C., Barlett, S., Corcoran, M., Crouse, J., Eaglesfield, D., Jackson, G., McClelland, K., Mueser, P., Olneck, M., Schwartz, J., Ward, S., & Williams, J. (1979). *Who gets ahead? The determinants of economic success in America*. New York: Basic Books.

John, O.P., Donahue, E.M., & Kentle, R.L. (1991). *The Big Five Inventory—Versions 4a and 54*. Berkeley: University of California at Berkeley, Institute of Personality and Social Research.

John, O.P., Naumann, L.P., & Soto, C.J. (2008). Paradigm shift to the integrative big five trait taxonomy: History, measurement, and conceptual issues. In O.P. John, R.W. Robins, & L.A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 114-158). New York, NY: Guildford Press.

Jones, A. C. (2008). The effects of out-of-class support on student satisfaction and motivation to learn. *Communication Education, 57*, 373-388. doi: 10.1080/03634520801968830

Jones, S.L., Hadjistavropoulos, H.D., & Sherry, S.B. (2012). Health anxiety in women with early-stage breast cancer: What is the relationship to social support? *Canadian Journal of Behavioural Science, 44,* 108-116. doi: 10.1037/a0027526

Kato, T. (2012). Development of the coping flexibility scale: evidence for the coping flexibility hypothesis. *Journal of Counseling Psychology, 59,* 262-273. doi: 10.1037/a0027770

Katt, J.A., & Collins, S.J. (2009). The effects of language style in written student assessments on student motivation and affective learning. *Human Communication, 12*, 465-4775.

Katt, J.A., & Condly, S.J. (2009). A preliminary study of classroom motivators and de-motivators from a motivation-hygiene perspective. *Communication Education, 58,* 213-234. doi: 10.1080/03634520802511472

Kelly, J.L., Lavergne, D.D., Boone, Jr., H.N., & Boone, D.A. (2012). Perceptions of college students on social factors that influence student matriculation. *College Student Journal, 46*, 653-664.

Kline, R.B. (2005). *Principles and practices of structural equation modeling* (2nd ed.). New York, NY: Guildford Press.

Kranstuber, H., Carr, K., & Hosek, A.M. (2012). "If you can dream it, you can achieve it." Parents memorable messages as indicators of college student success." *Communication Education*, 61, 44-66. doi: 10.1080/03634523.2011.620617

Krause, K.-L., Hartley, R., James, R., & McInnis, C. (2005) *The first year experience in Australian universities: Findings from a decade of national studies.* Australia: Department of Education, Science and Training.

Krotseng, M.V. (1992). Predicting persistence from the Student Adaptation to College Questionnaire: Early warning or Siren Song? *Research in Higher Education, 33*, 99-111. doi: 10.1007/BF00991974

LaMastro, V. (1999). Commitment and perceived organizational support. *National Forum of Applied Educational Research Journal, 12*, 1-13.

La Rocco, J. M., & Jones, A. P. (1978) Co-workers and leader support as moderators of stress-strain relationships in work situations. Journal of Applied Psychology, 63, 629-634. doi: 10.1037/0021-9010.63.5.629

Lazarus, R.S. (1999). *Stress and emotion: A new synthesis*. New York, NY: Springer.

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, ad coping.* New York: Springer.

Lee, J., M. Jr., Edwards, K., Menson, R., & Rawls, A. (2011). *The college completion agenda: 2011 progress report* (Research Report No.). Retrieved from The College Board website: http://completionagenda.collegeboard.org/reports

Lehman, D. R., Ellard, J. H., & Wortman, C. B. (1986). Social support for the bereaved: Recipients' and providers' perspectives on what is helpful. *Journal of Consulting and Clinical Psychology, 54*, 438-446.

Levitz, R., & Noel, L. (1989). Connecting students to institutions: Keys to retention and success. In. M. Upcraft, J. Gardner, & Associates (Eds.), *The freshman year experience: Helping students survive and succeed in college* (pp. 65-81). San Francisco: Jossey-Bass.

Li, W., Zhang, L., Liu, B., & Cao, H. (2013). The impact of negative interpersonal life events on social adaptation of Chinese college students: Mediator effect of self-esteem. *Social Behavior and Personality, 41*, 705-714. doi: http://dx.doi.org/10.2224/sbp.2013.41.5.705

Little, T.D., Cunningham, W.A., Shahar, G., & Widaman, K.F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9*, 151-173. doi: 10.1207/S15328007SEM0902_1

Lu, L. (1994). University transition: Major and minor stressors, personality characteristics and mental health. *Psychological Medicine, 24*, 81-87. doi: 10.1017/S0033291700026854

MacGeorge, E.L., Samter, W., & Gillihan, S.J. (2005). Academic stress, supportive communication, and health. *Communication Education, 54*, 365-371. doi: 10.1080/03634520500442236

MacKinnon, D.P., & Dwyer, J.H. (1993). Estimating mediating effects in prevention studies. *Evaluation Review, 17*, 144-158. doi: 10.1177/0193841X9301700202

MacKinnon, D.P., Krull, J.L., & Lockwood, C.M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science, 1*, 173-181. doi: 10.1023/A:1026595011371

MacKinnon, D.P., Lockwood, C.M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research, 39*, 99-128. doi: 10.1207/s15327906mbr3901_4

Magnusson, D. (1982). Situational determinants of stress: An interactional perspective. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 231-253). New York, NY: Free Press.

Maguire, K.C., & Kinney, T.A. (2010). When distance is problematic: Communication, coping, and relational satisfaction in female college students' long distance dating relationships. Journal of Applied Communication Research, 38, 27-46. doi: 10.1080/00909880903483573

Mallette, B.I., & Cabrera, A.F. (1991). Determinants of withdrawal behavior: An exploratory study. *Research in Higher Education, 32*, 179-194.

Mamiseishvili, K. (2012). International student persistence in U.S. Post secondary institutions. *Higher Education, 64*, 1-17. doi: 10.1007/s10734-011-9477-0

Mamiseishvili, K., & Koch, L.C. (2011). First-to-second-year persistence of students with disabilities in postsecondary institutions in the United States. *Rehabilitation Counseling Bulletin, 54*, 93-105. doi: 10.1177/0034355210382580

Mangold, W.D., Bean, L.G., Adams, D.J., Schwab, W.A., & Lynch, S.M. (2002). Who goes who stays: An assessment of the effect of a freshman mentoring and unit registration program on college persistence. *Journal of College Student Retention*, *4,* 95-122. doi: 10.2190/CVET-TMDM-CTE4-AFE3

Manning, W.D., & Smock, P.J. (1995). Why marry? Race and the transition to marriage among cohabitors. *Demography, 32*, 509-520. doi:10.2307/2061671

Mattanah, J.F., Ayers, J.F., Brand, B.L., Brooks, L.J. (2012). A social support intervention to ease the college transition: Exploring main effects and moderators. *Journal of College Student Development, 51*, 93-108. doi: 10.1353/csd.0.0116

Mattanah, J.F., Brooks, L.J., Brand, B.L., Quimby, J.L., & Ayers, J.F. (2012). A social support intervention and academic achievement in college: Does perceived loneliness mediate the relationship? *Journal of College Counseling, 15,* 22-36. doi: 10.1002/j.2161-1882.2012.00003.x

Mattlin, J.A., Wethington, E., and Kessler, R.C. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior, 31*, 103-122. doi: 10.2307/2137048

McCroskey, J.C., & Teven, J.J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs, 66*, 90-103. doi: 10.1080/03637759909376464

Medved, C.E., Borgan, S.M., McClanahan, M.A., Morris, J.F., & Shepherd, G.J., (2006). Family and work socializing communication: Messages, gender, and ideological implications. *Journal of Family Communication, 6*, 161-180. doi: 10.1207/s15327698jfc0603_1

Mellin, E.A. (2008). Rejection sensitivity and college student depression: Findings and implications for counseling. *Journal of College Counseling, 11,* 32-41. doi: 10.1002/j.2161-1882.2008.tb00022.x

Meyer, J.P., Stanley, D.J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20-52. doi: 10.1006/jvbe.2001.1842

Mooney, S.P., Sherman, M.F., & Lo Presto, C.T. (1991). Academic locus of control, self-esteem, and perceived distance from home as predictors of college

adjustment. *Journal of Counseling and Development, 69*, 445-448. doi: 10.1002/j.1556-6676.1991.tb01542.x

Mooney, C., & Duval, R. (1993). Bootstrapping: A nonparametric approach to statistical inference. Newbury Park, CA: Sage.

Moos, R.H., & Tsu, V. (1976) Human competence and coping: An overview. In R.H. Moos (Ed.). *Human adaptation: coping with life crises*. Lexington, MA: Heath.

Mortenson, S.T. (2006). Cultural differences and similarities in seeking social support as a response to academic failure: A comparison of American and Chinese college students. *Communication Education, 55*, 127-146. doi: 10.1080/03634520600565811.

Mowday, R.T., Steers, R.M., & Porter, L.W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14,* 224-247. doi: 10.1016/0001-8791(79)90072-1

Murphy, S. A. (1986). Perceptions of stress, coping, and recovery one and three years after a natural disaster. *Issues in Mental Health Nursing, 8,* 63-77. doi: 10.3109/01612848609012513

Muthén, B.O., & Asparouhov, T. (2002). *Using Mplus Monte Carlo simulations in practice: A note on non-normal missing data in latent variable models*. Mplus web notes. Retrieved from http://www.statmodel.com/download/webnotes/mc2.pdf

Muthén, L.K., & Muthén, B.O. (2012). *Mplus User's Guide* (7th edition). Los Angeles, CA: Muthén & Muthén.

Nazione, S. Laplante, C., Smith, S.W., Cornacchione, J., Russell, J., & Stohl, C. (2011). Memorable messages for navigating college life. *Journal of Applied Communication Research, 39,* 123-143. doi: 10.1080/00909882.2011.556138

Noftle, E.E., & Robins, R.W. (2007). Personality predictors of academic outcomes: Big Five correlates of GPA and SAT scores. *Journal of Personality and Social Psychology, 93*, 116-130. doi: 10.1037/0022-3514.93.1.116

Nyer, M., Holt, D.J., Pedrelli, P., Fava, M., Ameral, V., Cassiello, C.F., Nock, M.,K., Ross, M., Hutchinson, D., & Farabuagh, A. (2013). Factors that distinguish college students with depressive symptoms with and without suicidal thoughts. *Annals of Clinical Psychiatry, 25*, 41-49.

OECD. (2012). *Education at a glance 2012: OECD indicators*. Retrieved from http://www.oecd.org/edu/EAG%202012_e-book_EN_200912.pdf

Pascarella, E.T., & Terenzini, P.T. (1977). Patterns of student-faculty informal interaction beyond the classroom and voluntary freshman attrition. *The Journal of Higher Education, 48*, 540-552. doi: 10.2307/1981596

Pascarella, E.T., & Terenzini, P.T. (1979). Student-faculty informal contact and college persistence: A further investigation. *The Journal of Educational Research, 72*, 214-218.

Pascarella, E.T., & Terenzini, P.T. (1991). *How college affects students: Findings and insights from twenty year of research*. San Francisco: Jossey-Bass.

Pauley, P.M., & Hesse, C. (2009). The effects of social support, depression, and stress on drinking behaviors in a college student sample. *Communication Studies, 60*, 493-508. doi: 10.1080/10510970903260335

Paunonen, S.V. (2003). Big Five factors of personality and replicated prediction of behavior. *Journal of Personality and Social Psychology, 84*, 411-422. doi: 10.1037/0022-3514.84.2.411

Penn-Edwards, S., & Donnison, S. (2011). Engaging with higher education academic support: A first year student teacher transition model. *European Journal of Education, 46*, 566-580. doi: 10.1111/j.1465-3435.2011.01501.x

Plax, T.G., Kearney, P., McCroskey, J.C., & Richmond, V.P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. *Communication Education, 35*, 43-55. : doi: 10.1080/03634528609388318

Powers, M.S. (2010). *Applying Schlossberg's transition theory to nontraditional male drop-outs*. (Doctoral dissertation, University of Nebraska—Lincoln). Retrieved from http:// digitalcommons.unl.edu/cehsedaddiss/19

Punyanunt-Carter, N.M., & Wagner, T.R. (2005). Communication based emotional support differences between professor and teaching assistants. *Education, 125*, 569-574. Doi:

Ramos-Sánchez, L., & Nichols, L. (2007). Self-efficacy of first-generation and non-first-generation college students: The relationship with academic performance and college adjustment. *Journal of College Counseling, 10*, 6-18. doi: 10.1002/j.2161-1882.2007.tb00002.x

Raykov, T., & Marcoulides, G.A. (2006). *A first course in structural equation modeling* (2nd ed.). New York, NY: Psychology Press.

Richmond, V.P., & McCroskey, J.C. (1984). Power in the classroom II: Power and learning. *Communication Education, 33,* 125-136. doi: 10.1080/03634528409384729

Robins, R.W., Hendin, H.M., & Trzesniewski, K.H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin, 27*, 151-161. doi: 10.1177/0146167201272002

Rosenbaum, J. (1984). *Career mobility in a corporate hierarchy*. New York: Academic Press.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review, 60*, 141-456. doi: 10.2307/2096350

Rousseau, V., & Aubé, C. (2010). Social support at work and affective commitment to the organization: The moderating effect of job resource adequacy and ambient conditions. *Journal of Social Psychology, 150*, 321-340. doi: 10.1080/00224540903365380

Sarason, B. R., & Sarason, I. G. (2006). Close relationships and social support: Implications for the measurement of social support. In A.L. Vangelisti & D.

Perlman (Eds.), The Cambridge handbook of personal relationships (pp. 429-443). New York: Cambridge.

Scherer, R.F., & Brodzinski, J.D. (1990). An analysis of the ways of coping questionnaire. *Management Communication Quarterly,* 3, 401-418. doi: 10.1177/0893318990003003008

Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist*, *9*(2), 2-18. doi: 10.1177/001100008100900202

Schlossberg, N.K. (1970). Adult men: Education and re-education. *Vocational Guidance Quarterly, 19(1),* 36-40. : 10.1002/j.2164-585X.1970.tb01924.x

Schlossberg, N.K., & Leibowitz, Z. (1980). Organizational support systems as buffers to job loss. *Journal of Vocational Behavior, 17*, 204-217. doi: 10.1016/0001-8791(80)90005-6

Schlossberg, N.K., Waters, E.B., & Goodman, J. (1995). *Counseling adults in transition* (2nd ed.) New York: Springer.

Schrodt, P., Witt., P.L., Turman, P.D., Myers, S.A., Barton, M.H., & Kodiane, J.A. (2009). Instructor credibility as a mediator of instructors' prosocial communication behaviors and students' learning outcomes. *Communication Education, 58*, 350-371. doi: 10/1080/03634520902926851

Segal, D.L., Coolidge, F.L., Cahill, B.S., & O'Riley, A.A. (2008). Psychometric properties of the Beck Depression Inventory—II (BDI-II) among community-dwelling older adults. *Behavior Modification, 32*, 3-20. doi: 10.1177/0145445507303833

Skahill, M.P. (2002). Role of social support network in college persistence among freshman students. *Journal of College Student Retention, 4*, 39-52. doi: 10.2190/LB7C-9AYV-9R84-Q2Q5

Smith, R.A., & Petereson, B.L. (2007). "Psst…What do you think?" The relationship between advice prestige, type of advice, and academic performance. *Communication Education, 56*, 278-291. doi: 10.1080/03634520701364890

Starling, P.V., & Miller, G. (2011). Negative thought patterns of undecided community college students: Implications for counselors and advisors. *Community College Journal of Research & Practice, 35,* 756-772. doi: 10.1080/10668920903381839

Stephenson, M.T., & Holbert, R.L. (2003). A monte carlo Simulation of observable versus latent variable structural equation modeling techniques. Communication Research, 30, 332-354. doi: 10.1177/0093650203030003004

Stephenson, M.T., Holbert, R.L., Zimmerman, R.S. (2006). On the use of structural equation modeling in health communication research. *Health Communication, 20,* 159-167. doi: 10.1207/s15327027hc2002_7

Stephens, K.K., Houser, M.L., & Cowan, R.L. (2009). R U able to meat me: The impact of students' overly casual email messages to instructors. *Communication Education, 58*, 303-326. doi: 10.1080/03634520802582598

Stohl, C. (1986). The role of memorable messages in the process of organizational socialization. *Communication Quarterly, 34,* 231-249. doi: 10.1080/01463378609369638

Stone, C.A, & Sobel, M.E. (1990). The robustness of estimates of total indirect effects in covariance structure models estimated by maximum likelihood. *Psychometrika, 55*, 337-352. doi: 10.1007/BF02295291

Strage, A. (2000). Predictors of college adjustment and success: Similarities and differences among Southeast-Asian-American, Hispanic, and white students. *Education, 120*, 731-721.

Stupnisky, R.H., Perry, R.P., Renaud, R.D., & Hladkyj, S. (2013). Looking beyond grades: Comparing self-esteem and perceived academic control as predictors of first-year college students' well-being. *Learning and Individual Differences, 23*, 151-157. doi: 10.1016/j.lindif.2012.07.008

Taub, D.J. (2008). Exploring the impact of parental involvement on student development. *New Directions for Student Services, 122*, 15-28. doi: 10.1002/ss.272

Teven, J.J. (2007). Teacher caring and classroom behavior. Relationships with student affect and perceptions of teacher competence and trustworthiness. *Communication Quarterly, 55*, 433-450. doi: 10.1080/01463370701658077

Teven, J.J., & Herring, J.E. (2005). Teacher influence in the classroom: A preliminary investigation of perceived instructor power, credibility, and student satisfaction. *Communication Research Reports, 22*, 235-246. doi: 10.1080/00036810500230685

Teven, J.J., & McCroskey, J.C. (1996). The relationship of perceived teacher caring with student learning and teacher evaluation. *Communication Education, 46*, 1-9.

Thompson, B. (2008). How college freshman communicate student academic support: A grounded theory study. *Communication Education, 57*, 123-144. doi: 10.1080/03634520701576147

Thompson, B., & Mazer, J.P. (2009). College student ratings of student academic support: Frequency, importance, and models of communication. *Communication Education, 58,* 433-458. doi: 10.1080/03634520902930440

Thompson, C., P. (1982). Memory for unique personal events: The roommate study. *Memory & Cognition, 10*, 324-332. doi: 10.3758/BF03202424

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.) Chicago: The University of Chicago.

Tomlinson-Clarke, S. (1998). Dimensions of adjustment among college women. *Journal of College Student Development, 39,* 364-370.

Tyler, K.M., Garriott, P.O., Love, K.M., Brown, C., Thomas, D.M., & Roan-Belle, C. (2011). Linking home communalism to college adjustment and institutional attachment for African American and European American undergraduates. *College Student Affairs Journal, 30*, 47-61.

U.S. Census Bureau, Statistical Abstract of the United States: 2012 (131st edition). Washington, DC, 2011; <http://www.census.gov/compendia/statab/>.

U.S. Department of Education, National Center for Education Statistics. (2002*). Short-term enrollment in postsecondary education: Student Background and institutional differences in reasons for early departure: 1996-98*. Washington, DC: U.S. Department of Education.

U.S. Department of Education, National Center for Education Statistics. (2011) *Digest of Education Statistics: 2010*. (NCEC Publication No. 2011-015). Retrieved from http://nces.ed.gov/programs/digest

Vaux, A. (1982). Measures of three levels of support: Resources, behaviors, and feelings. Unpublished manuscript.

Vaux, A., Riedel, S., & Stewart, D. (1987). Modes of social support: The social support behaviors (SS-B) scale. *American Journal of Community Psychology, 15*, 209-237. doi: 10.1007/BF00919279

Vella-Zarb, R.A., & Elgar, F.J. (2009). The 'freshman 5': A meta-analysis of weight gain in the freshman year of college. *Journal of American College Health, 58,* 161-166. : 10/1080/07448480903221392

Vitaliano, P.P., Russo, J., Carr, J.E., Maiuro, R.D., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavioral Research, 20,* 3-26. doi: 10.1207/s15327906mbr2001_1

Wang, T.R. (2012). *Formational relational turning points in the transition to college: Understanding how communication events shape first-generation students' relationships with their college teachers*. (Doctoral dissertation, University of Nebraska—Lincoln). Retrieved from http://digitalcommons.unl.edu/commstuddiss/20

Wei, M., Russell, D.W., & Zakalik, R.A. (2005). Adult attachment, social self-efficacy, self-disclosure, loneliness, and subsequent depression for freshman college students: A longitudinal study. *Journal of Counseling Psychology, 52*, 602-614. doi: 10.1037/0022-0167.52.4.602

Wheeless, V.E., Witt, P.L., Maresh, M., Bryand, M.C., & Schrodt, P. (2011). Instructor credibility as a mediator of instructor communication and students' intent to persist in college. *Communication Education, 60*, 314-339. doi: 10.1080/03634523.2011.555917

Wilks, S.E., & Spivey, C., A. (2010). Resilience in undergraduate social work students: Social support and adjustment to academic stress. *Social Work Education, 29*, 276-288. doi: 10.1080/02615470902912243

Wintre, M.G., & Bowers, C.D. (2007). Predictors of persistence to graduation: Extending a model and data on the transition to university model. *Canadian Journal of Behavioural Science, 39*, 220-234. doi: 10.1037/cjbs2007017

Witt, P.L., Wheeless, L.R., Allen, M. (2004). A meta-analytical review of the relationship between teacher immediacy and student learning. *Communication Monographs, 71*, 184-207. doi: 10.1080/036452042000228054

Wright. K.B. (2012). Emotional support and perceived stress among college students using Facebook.com: An exploration of the relationship between source perceptions and emotional support. *Communication Research Reports, 29*, 175-184. doi: 10.1080/08824096.2012.695957

Wyatt, G., Saunders, D., and Zelmer, D. (2005). Academic preparation, effort, and success: A comparison of student and faculty perceptions. *Educational Research Quarterly, 29*, 29-36.

Young, A. (1975). Students, graduates, and dropouts in the labor market, October, 1974. *Monthly Labor Review, 98*, 33-36.

Young, A, & Hayghe, H. (1984). More U.S workers are college graduates. *Monthly Labor Review, 107,* 46-49.

Zaleski, E.H., Level-Thors, C., & Schiaffino, K.M. (1998). Coping mechanisms, stress, and social support and health problems in college students. *Applied Developmental Science*, *2*, 127-137.

APPENDICES

APPENDIX A

RECRUITMENT SCRIPT

Transition and Adaptation to College Study

My name is Arleen Bejerano and I am a Ph.D. candidate in Communication Studies at the University of Nebraska—Lincoln. I am conducting research on students' experiences transitioning and adapting to college.

In order to participate in this study you must meet the following criteria:

1. You must be at least 18 years of age or older.

2. You must be in your *first* year of college or university, and currently enrolled as a full-time student in your college or university. Students who have been attending college/university for more than one year are not eligible to participate.

3. You must have started attending college directly after completing high school.

If you meet these requirements, you are invited to participate in the anonymous online survey. This survey will ask you about your college experience, your personal characteristics, and a few demographic questions. Participation in this study will require approximately ***30 minutes*** of your time, but you can take longer to complete the survey if you need more time. Your participation is completely voluntary. At any time throughout the survey you may choose not to answer any question(s) and you are free to exit the survey at any time if you do not feel comfortable.

Compensation

If your instructor agrees, you may earn extra credit for your full participation. The survey consists of two parts: 1) the first part is an anonymous survey that asks you questions about your college/university experiences and your demographic information; and 2) The second part of the survey asks for your name, course, and instructor information for extra credit for participating in this research study. The information on the second survey will be completely unconnected to the information in the first survey.

If you are a student at the University of Nebraska—Lincoln and your instructor agrees, you will receive 1 extra credit (1 credit = 5 points) for participation in this study. I will inform your instructor that you participated in a research study, but the nature and topic of the study will not be revealed, nor will your responses be revealed. If you do not wish to participate in this study, or if you are not eligible to participate, a separate but equal extra credit assignment will be made available to you by your instructor.

If you are a student attending another college or university besides the University of Nebraska—Lincoln, you may still be able to earn extra credit. Extra credit will be left to the discretion of your instructor and outside of the researcher's control. If your instructor agrees to provide you with extra credit for participating in this research study, you will be asked to provide your name and instructor's information at the end of the survey. If your instructor does *not* agree to provide you with extra credit, no other compensation will be provided.

If you agree to participate, please feel free to complete the informed consent and survey at:

https://ssp.qualtrics.com/SE/?SID=SV_3kIqqhwB0SEtGWp

(Please copy and paste the link if clicking the link does not take you to the survey)

Thank you for your consideration of involvement in this study. If you have any questions about the study, please feel free to contact:

Arleen Bejerano

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APPENDIX B

INFORMED CONSENT FORM
STUDENTS' TRANSITION AND ADAPTATION TO COLLEGE STUDY

Purpose of the study
This research study is about college students' experiences transitioning to college. You are invited to participate in this study. This study will provide insight into college students' experiences and advance the information available on how college students, such as yourself, manage the transition to college.

Criteria for participation
In order to participate in this study, you must fulfill the following criteria:

1. You must be at least 18 years of age or older.

2. You must be in your first year of college or university, and currently enrolled as a full-time student in your college or university. Students who have been attending college/university for more than one year are not eligible to participate.

3. You must have started attending college directly after completing high school.

Procedures
Participants will take two surveys. The first survey will be an anonymous online survey. The survey will take approximately 30 minutes, but you can choose to take extra time to complete the survey if you need it, as there is no time limit. The survey will ask you questions about your college/university experiences and your demographic information. This part of the survey will not ask you for any identifying information.

At the end of the first survey, there will be a second survey. The second survey will be used to provide extra credit information to your professors (if your professor has agreed to provide you with extra credit for research participation). In the second survey, the participant may provide their name, course, and instructor, for those who would like to receive credit for participating in research. The information on the second survey will be completely unconnected to the information in the first survey.

Benefits
Participating in this study may provide you with insights into how you managed your transition to college and how you understand your college experience. Your involvement in this study will allow you to be a part of socially significant research

that may benefit communication and education scholars, as well as academic counselors. Thus, you will also be advancing knowledge on student adaptation to college. Last, your involvement means that you will be contributing to your campus community. At the conclusion of this project, the principal investigator is willing to share key findings with interested participants. If you wish to receive more information about the key findings, please contact the researcher, Arleen Bejerano, whose information can be found on the next page.

Risks

The foreseeable risks/discomforts of participating in this study are no greater than that of everyday life, similar to the experience of sharing your opinions in a friendly conversation about college life. There is a risk that you might experience slight emotional distress or discomfort if you participate. The research has taken steps to eliminate these risks for participants by ensuring that your responses will be confidential, and allowing you to stop taking the survey at any time. If your suffer any emotional or mental distress as a result of your participation, please contact the University of Nebraska's Counseling and Psychological Services at (402) 472-2351. Treatment is available to student and non-students on a sliding fee scale, and it is the responsibility of each participant to pay for treatment if they choose to seek it out. The researcher will not be held liable for treatment expenses incurred. In addition, while this study is considered one of minimal risks, you understand that there could be unforeseeable risks.

In addition, participants may report experiencing depression and suicidal thoughts as a result of the difficulties they have experienced during the college transition. In the event that you experience depression or suicidal thoughts, you are encouraged to seek help by contacting the University of Nebraska's Counseling and Psychological Services at (402) 472-2351. If you are not a student at the University of Nebraska—Lincoln or if you cannot afford treatment, you can seek help by accessing the following resources free of charge:

www.ifred.org

The *International Foundation for Research and Education on Depression* is an organization dedicated to shining a positive light on depression and eliminating the stigma associated with the disease through prevention, research, and education. Individuals can find support and learn about depression by visiting the website online.

www.imalive.org

This organization provides free and confidential live online support through instant messaging. The organization provides a crisis network with 100% of its staff and volunteers trained and certified in crisis intervention. Individuals can visit the online website for support and information.

1-800-SUICIDE

This is a national crisis hotline that individuals can call 24 hours a day, 7 days a week. The hotline connects individuals to an available certified crisis centre nearest to their calling location.

Withdrawal

Your participation is entirely voluntary. You can withdraw and stop your participation at any time, without penalty or loss of benefits to which you are otherwise entitled. Your decision to withdraw will not impact current or future relationships with the investigator, the Department of Communication Studies, or the University of Nebraska—Lincoln. To withdraw or stop participation, simply close the web browser.

Compensation

If you are currently enrolled in a UNL Communication Studies course, you may be able to earn 1 research credit or 1 extra credit (1 credit = 5 points) for your full participation in this study. You must complete all parts of the study to earn research credit or extra credit. Extra credit or research credit compensation is at the discretion of your instructor or professor and outside of the researcher's control. Should you choose *not* to participate in this study, you will be afforded other opportunities to earn points by your instructor or professor, such as participation in other research studies or completion of other reading or writing assignments. All research opportunities are posted on the Communication Studies Department website which is regularly updated throughout the semester. Further, the non-research opportunities provided to you will take approximately the same amount of time and effort as participating in research studies.

If you are a student attending another college or university (besides the University of Nebraska—Lincoln), you may still be able to earn extra credit. Extra credit will be left to the discretion of your instructor and outside of the researcher's control. You must complete all parts of the study to earn research credit or extra credit. If your instructor agrees to provide you with extra credit for participating in this research study, you will be asked to provide your name and instructor's information at the end of the survey. I will inform your instructor that you participated in a research study, but the nature and topic of the study will not be revealed, nor will your responses be revealed. If your instructor does *not* agree to provide you with extra credit, no other compensation will be provided.

Confidentiality and privacy

You and your answers on the survey will not be linked together. The survey only collects information about your perception of your college transition and experience. All information is and will be kept confidential. Results of this research may be presented at professional conventions or reported in journal articles. However, your survey responses will be kept confidential and your name will not be associated in any way with the research findings. If you are participating in this study for extra credit, the researcher will report your name to Dr. Soliz, the

Communication Studies Institutional Review Board department representative. Dr. Soliz will inform your instructor or professor that you have participated in department research for research extra credit, but in order to protect your privacy, he will not disclose the study in which you participated.

The records of this study will be stored securely (in a password protected computer in a locked office) and kept private. Data will be coded by a combination of letters and/or numbers. Only the researcher, authorized persons from the University of Nebraska-Lincoln, and members of the Institutional Review Board have the legal right to review the research records and will protect the confidentiality of the research participants.

Questions

As a participant in this study, you have the right to ask questions and have those questions answered at any time. If you would like additional information concerning this study, please feel free to contact the researcher, using her contact information below:

Arleen Bejerano, Ph.D. Candidate
Department of Communication Studies
University of Nebraska—Lincoln
432 Oldfather Hall
Lincoln, Nebraska 68588
arbejerano@huskers.unl.edu

If you have any questions about your rights as a research participant that have not been answered by the investigator or if you would like to report any concerns about the study, you may contact the University of Nebraska—Lincoln Institutional Review Board at (402) 472-6965.

Consent

You are voluntarily making a decision whether or not to participate in this research study.

By clicking "*I agree*," you are indicating that you meet the criteria to participate in the present study, you understand the information presented to you, and you agree to the terms and conditions indicated on this form. You may print a copy of this form for your records if you choose.

By clicking "*I decline*," you are withdrawing from participating in the study.

- ☐ I agree (proceed to the survey)
- ☐ I decline (exit survey)

APPENDIX C

STUDY QUESTIONNAIRE

Student Academic Support Scale (Thompson and Mazer, 2009).

Using the following scale, please indicate how often each type of support provided by a friend in a class occurred over the last month:

1	2	3	4	5
Not at all	Once or twice a month	About once a week	Several times a week	About every day

1. Another student explained how to solve a specific problem. [Informational support]
2. Another student clarified how to do an assignment [Informational support].
3. Another student helped me complete an assignment [Informational support].
4. Another student showed me how to do something for an assignment [Informational support].
5. Another student helped me gain a clearer understanding of class material [Informational support].
6. Another student explained something from class to me [Informational support].
7. Another student help me get a better grade on an assignment. [Informational support].
8. Another student helped raise my confidence about school [Esteem support].
9. Another student made me feel better about school [Esteem support].
10. Another student enhanced my self-esteem through academic support [Esteem support].
11. Another student encouraged me to study [Motivational support].
12. Another student helped me stay focused on my schoolwork [Motivational support].
13. Another student made sure I got to class [Motivational support].
14. Another student listened to me vent about frustrations with a class [Venting support].
15. Another student listened to me vent about frustrations with a teacher [Venting support].

Social Support Behaviors Scale (Vaux, Riedel, & Stewart, 1987).

People help each other out in a lot of different ways. Suppose you had some kind of problem in college (were upset about a grade you earned on an exam, were broke, or needed some advice or guidance), *how likely* would members of your *family* help you out in each of the specific ways listed below. We realize you may rarely need this kind of help, but *if you did* would family help in the ways indicated? Try to base your answers on your past experience with these people. Use the scale below and circle one number under family in each row.

1 *no one* would do this	2 *someone might* do this	3 *some* family member would *probably* do this	4 *some* family member would *certainly* do this	5 *most* family members would *certainly* do this

Emotional support items

3. Comforted me when I was upset.
8. Joked around or suggested doing something to cheer me up.
12. Listened when I needed to talk about my feelings.
16. Gave me encouragement to do something different.
20. Showed me that they understood how I was feeling.
23. Gave me a hug, or otherwise showed me I was cared about.
27. Did not pass judgment on me.
30. Was sympathetic when I was upset.
31. Stuck by me in a crunch.
36. Showed affection for me.

Socializing items

2. Visited with me or invited me over.
5. Had lunch or dinner with me.
9. Went to a movie or concert with me.
13. Had a good time with me.
18. Chatted with me.

Practical assistance items

4. Gave me a ride when I needed one.
6. Looked after my belongings for a while.
7. Loaned me a car when I needed one.
11. Helped me out with a move or other big chore.

34. Loaned me tools, equipment, or appliances when I needed them.
37. Showed me how to do something I didn't know how to do.
40. Talked to other people, to arrange something for me.
43. Offered me a place to stay for a while.

Advice/guidance items

15. Suggested a way I might do something.
17. Gave me advice about what to do.
19. Helped me figure out what I needed to do.
22. Helped me decide what to do.
25. Helped me figure out what was going on.
28. Told me who to talk to for help.
33. Told me about the available choices and options.
35. Gave me reasons why I should or should not do something.
39. Told me the best way to get something done.
42. Told me what to do.
44. Helped me think about a problem.

Perceived Caring Scale (McCroskey & Teven, 1999).

The following questions are concerned with how you perceive that your professors, in general, communicate with you across a variety of issues. For each statement, respond by circling the number that best represents your agreement with that statement.

My professors…

1. [Reverse code]

Care about me						*Don't care about me*
1	2	3	4	5	6	7

2. [Reverse code]

Have my interests at heart						*Don't have my interests at heart*
1	2	3	4	5	6	7

3.

Are self-centered						*Are not self-centered*
1	2	3	4	5	6	7

4. [Reverse code]

Are concerned with me						*Are not concerned with me*
1	2	3	4	5	6	7

5.

Are insensitive						*Are sensitive*
1	2	3	4	5	6	7

6.

Are not understanding						*Are understanding*
1	2	3	4	5	6	7

The Coping Flexibility Scale (Kato, 2012)

When we feel stress, such as during the college transition, we try to cope using various actions and thoughts. The following items describe stress-coping situations. Please indicate how these situations apply to your college transition by rating the extent to which each item applies to you using the following scale:

0	1	2	3
Not applicable	Somewhat applicable	Applicable	Very applicable

1. When a stressful situation has not improved has not improved, I try to think of other ways to cope with it.
2. I only use certain ways to cope with stress. (R)
3. When stressed, I use several ways to cope and make the situation better.
4. When I haven't coped with a stressful situation well, I use other ways to cope with that situation.
5. If a stressful situation has not improved, I use other ways to cope with that situation.
6. I am aware of how successful or unsuccessful my attempt to cope with stress have been.
7. I fail to notice when I have been unable to cope with stress. (R)
8. If I feel that I have failed to cope with stress, I change the way in which I deal with stress.
9. After coping with stress, I think about how well my ways of coping with stress worked or did not work.
10. If I have failed to cope with stress, I think of other ways to cope.

The Evaluative Coping subscale items are 2, 6, 7, 8, and 9. The Adaptive Coping scale items are 1, 3, 4, 5, and 10. Reverse-coded items are denoted with (R).

Rosenberg's Self-Esteem Scale (Rosenberg, 1965)

Indicate the extant to which you would think the following statements about yourself, using the following scale:

0 Strongly disagree	1	2	3 Strongly agree

1. I feel that I am a person of worth, at least on an equal plane with others.
2. All in all, I am inclined to feel that I am a failure. [R]
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of. [R]
6. I take a positive attitude toward myself.
7. I wish I could have more respect for myself. [R]
8. On the whole, I am satisfied with myself.
9. I certainly feel useless at times. [R]
10. At times I think I am no good at all. [R]

Beck Depression Inventory—Short form (Beck & Beck, 1972).

Please read each group of statements carefully, and then pick out the *one statement* in each group that best describes the way you have been feeling during *the past two weeks, including today*. Circle the number beside the statement you have chosen. If several statements in the group seems to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group.

1. Sadness
   - 4 I am so sad or unhappy that I can't stand it.
   - 3 I am blue or sad all the time and I can't snap out of it.
   - 2 I feel sad or blue
   - 1 I do not feel sad.

2. Pessimism
   - 4 I feel my future is hopeless and that things cannot improve.
   - 3 I feel I have nothing to look forward to.
   - 2 I feel discouraged about my future.
   - 1 I am not particularly pessimistic or discouraged about my future.

3. Sense of Failure
   - 4 I feel I am a total failure as a student.
   - 3 As I look back on my life, all I can see is a lot of failures.
   - 2 I feel I have failed more than the average student.
   - 1 I do not feel like a failure.

4. Dissatisfaction
   - 4 I am dissatisfied with everything.
   - 3 I don't get satisfaction out of anything anymore.
   - 2 I don't enjoy things the way I used to.
   - 1 I am not particularly dissatisfied.

5. Guilt
   - 4 I feel as though I am very bad or worthless.
   - 3 I feel quite guilty.
   - 2 I feel bad or unworthy a good part of the time.
   - 1 I don't feel particularly guilty.

6. Self-dislike
   - 4 I hate myself.
   - 3 I am disgusted with myself
   - 2 I am disappointed in myself.
   - 1 I don't feel disappointed in myself.

7. Self-harm
   - 4 I would kill myself if I had the chance.
   - 3 I have definite plans about committing suicide.
   - 2 I feel I would be better off dead.
   - 1 I don't have any thoughts of harming myself.

8. Social withdrawal
   - 4 I have lost all of my interest in other people and don't care about them at all.
   - 3 I have lost most of my interest in other people and have little feeling for them.
   - 2 I am less interested in other people than I used to be.
   - 1 I have not lost interest in other people.

9. Indecisiveness
   - 4 I can't make any decisions at all anymore.
   - 3 I have great difficulty in making decisions.
   - 2 I try to put off making decisions.
   - 1 I make decisions about as well as ever.

10. Self-image change
    - 4 I feel that I am ugly or repulsive-looking.
    - 3 I feel that there are permanent changes in my appearance and they make me look unattractive.
    - 2 I am worried that I am looking old or unattractive.
    - 1 I don't feel that I look any worse that I used to.

11. Work difficulty
    - 4 I can't do any work at all.
    - 3 I have to push myself very hard to do anything.
    - 2 It takes extra effort to get started at doing something.
    - 1 I can work about as well as before.

12. Fatigability
    - 4 I get too tired to do anything.
    - 3 I get tired from doing anything.
    - 2 I get tired more easily than I used to.
    - 1 I don't get any more tired than usual.

13. Appetite
    - 4 I have no appetite at all.
    - 4 I crave food all the time.
    - 3 My appetite is much less than before.
    - 3 My appetite is much greater than usual.
    - 2 My appetite is somewhat less than usual.

2 My appetite is somewhat greater than usual.
1 I have not experienced any change in my appetite.

Student Adaptation to College Questionnaire (short version; Baker & Siryk, 1989).

For each of the following questions, please think of your experience transitioning to college and indicate how much you agree with each of the statements using the following 9-point scale

1	2	3	4	5	6	7	8	9
Applies very closely to me								Doesn't apply to me at all

Academic adjustment

3. *[Reverse code]* I keep up to date with academic work.
6. I find academic work difficult.
10. I do not function well during exams.
13. *[Reverse code]* I am satisfied with my academic performance.
17. I do not work as hard as I should.
21. I do not feel smart enough for course work.
25. I do not use study time efficiently.
27. *[Reverse code]* I enjoy writing papers for courses.
29. I am not motivated to study.
39. I have trouble concentrating when studying.
41. Considering the effort I put in, I have not been doing well academically.
44. *[Reverse code]* I attend class regularly.
52. I have trouble getting started on homework.

Social adjustment

1. *[Reverse code]* I fit in well with the college environment.
4. *[Reverse code]* I meet people and make friends.
8. *[Reverse code]* I am very involved with social activities in college.
9. *[Reverse code]* I am adjusting well to college.
14. *[Reverse code]* I engage in informal contact with my professors.
18. *[Reverse code]* I have several close social ties.
33. *[Reverse code]* I get along well with my roommates.
37. *[Reverse code]* I have adequate social skills.
42. I have difficulty feeling at ease with others at college.
46. *[Reverse code]* I am satisfied with my participation in social activities.
48. I do not mix well with the people from the opposite sex.

56. I feel different from others in undesirable ways.
63. *[Reverse code]* I have good friends to talk with about my problems.
65. *[Reverse code]* I am satisfied with my social life.

Personal-emotional adjustment

2. I feel tense or nervous in college.
7. I feel blue and moody in college.
12. Being on my own and taking responsibility for myself has not been easy.
20. I have not been able to control my emotions well lately.
31. I have thought about seeking psychological help recently.
38. I have been getting angry too easily lately.
45. Sometimes thinking gets me muddled too easily.
49. I worry a lot about college expenses.
64. I have trouble coping with college stress.

Attachment

15. *[Reverse code]* I am pleased with my decision to go to college.
16. *[Reverse code]* I am pleased about my decision to attend this college.
34. I would prefer to be at another college.
47. *[Reverse code]* I expect to finish my bachelor's degree.
59. I am thinking about transferring to another college.
60. I think a lot about dropping out of college permanently.
61. I am thinking about taking time off from college.

Educational Commitment Scale (Hellman & Williams-Miller, 2005).

Please rate your responses using the five-point scale below:

1	2	3	4	5
Strongly disagree	Disagree	Undecided	Agree	Strongly agree

Affective Commitment scale

1. I am proud to be a college student.
2. Being a college student has a great deal of personal meaning for me.
3. I really enjoy talking to other people about my college experience.
4. Being enrolled in college has made me happy.
5. I have always dreamed of going to college.

Normative Commitment scale

1. In my family, going to college is highly valued.
2. My family would be disappointed if I did not go to college.
3. For the most part, it was expected that I would go to college.
4. It would really disappoint people who are close to me if I decided to drop out of school.

Demographic Information

1. What is your sex? (Please check one box)
    a. Male
    b. Female
    c. Other (please indicate): _____

2. What is your age? (Please write)
    a. _____ years

3. How long have you been in college?
    a. _____months _____ weeks

4. What is your ethnicity? (Check as many as apply)
    a. Asian
    b. Black or African American
    c. Caucasian or White
    d. Hispanic, Latino/a, Mexican, or South American
    e. Middle Eastern
    f. Native American
    g. Pacific Islander
    h. Other (please indicate: _____)

APPENDIX D

RESEARCH DEBRIEF

Thank you for participating in this research study.

This study examines how students manage the transition to college. For many students, the transition is difficult. If you experience distress as a result of taking this survey, are struggling with aspects of the transition, are depressed, or have suicidal thoughts, there are resources that can help you and people you can talk with.

Where Can You Get Help?

If you or someone you know are experiencing depression or suicidal thoughts, you are encouraged to seek help from the following resources (these resources are free of charge):

www.ifred.org

The *International Foundation for Research and Education on Depression* is an organization dedicated to shining a positive light on depression and eliminating the stigma associated with the disease through prevention, research, and education. Individuals can find support and learn about depression by visiting the website online.

www.imalive.org

This organization provides free and confidential live online support through instant messaging. The organization provides a crisis network with 100% of its staff and volunteers trained and certified in crisis intervention. Individuals can visit the online website for support and information.

1-800-SUICIDE

This is a national crisis hotline that individuals can call 24 hours a day, 7 days a week. The hotline connects individuals to an available certified crisis center nearest to the calling location.